1609/1580.

A

TREATISE

UPON

ULCERS of the LEGS, &c.

15 DEC 69

A

TREATISE

Ex Libris Societatis

UPON

ULCERS of the LEGS;

IN WHICH

Former METHODS of TREATMENT are candidly examined and compared,

Medica Ediment

WITH

ONE more RATIONAL and SAFE:

PROVING

That a PERFECT CURE may generally be effected more certainly, without REST and CONFINEMENT,

THAN

By the STRICT REGIMEN in Common Uſe.

WITH AN

INTRODUCTION

ON THE

Proceſs of ULCERATION and the Origin of PUS LAUDABILE.

TO WHICH ARE ADDED

Hints on a SUCCESSFUL METHOD of treating ſome SCROPHULOUS TUMORS;

And the *Mammary Abſceſs* and *Sore Nipples* of *Lying-in* Women:

By MICHAEL UNDERWOOD,

Surgeon to the Britiſh Lying-in Hoſpital.

Æque Pauperibus prodeſt Locupletibus æque.

HOR. Lib. i. Ep. 1.

LONDON:

PRINTED for J. MATHEWS, No. 18, STRAND.

M.DCC.LXXXIII.

[Price 3s. in Boards.]

TO

Sir *Cæsar Hawkins*, Bart.

SIR,

THE following pages having been honored with your approbation, allow me to inscribe them to you, both as a mark of my respect, and an apology to the world for the present attempt.

For though Sir Cæsar Hawkins needs no panegyrist, the sanction of his name will make me less afraid of the severity of critical censure, either from the public at

large, or the medical faculty in particular; with whom his opinion has ever been of the firſt authority.

I have only to regret, Sir, that the occaſion of taking this liberty is not more important. My opportunities of improvement, in ſtudying under your immediate care for ſeveral years, certainly demanded ſomething more worthy of your protection, than ſo ſmall and imperfect a performance.

However the nature of my obligations is ſuch, as forces me to make this public acknowledgement: not that I mean, Sir, to trouble you at preſent with a formal declaration of thoſe reſpectful ſentiments to which you are no ſtranger; I am only proud to be included in the number of

your

your friends, whom the advantage of a more intimate knowledge has inſpired with an eſteem ſuperior to that of common acquaintance.

That you may long live to enjoy the honors and comforts, acquired with univerſal approbation, is the moſt ſincere wiſh of him who has the honor to ſubſcribe himſelf,

SIR,

With great Reſpect,

Your much obliged,

and obedient humble Servant,

Great Marlborough Street,
19th April, 1783.

M. UNDERWOOD.

PREFACE.

NO man publiſhes an opinion to the world, even on the moſt trivial occaſion, without ſome view to himſelf, or others, or to both; and cuſtom has eſtabliſhed an almoſt univerſal law, by which an author is bound either to diſcover his real motives, or to deviſe ſome plauſible, and handſome excuſe for his own boldneſs. The writer of the following ſheets, without affecting any uncommon ſhare of philanthropy, would not willingly have riſked the favourable opinion of his friends, had he not been perſuaded, that the good effects of this publication will anſwer his intentions, and be of ſome ſervice to the diſtreſſed. He is encouraged to ſay thus much, at leaſt, having already ſeen conſiderable advantages

ariſing

ariſing from a method of treatment, materially different from that at preſent in faſhion. And if any improvement can be ſuggeſted, in a branch of ſurgery confeſſedly imperfect, (for who will deny that ſore legs are difficult of a laſting cure,) no great apology can be thought neceſſary, for communicating to the world any hints on the ſubject that may be uſeful.

The form, indeed, in which theſe obſervations are preſented, requires more excuſes than the author knows how to make; but he truſts that the plainneſs, or rather homelineſs of their dreſs, will not ſo far prejudice them in the eyes of liberal men, as to prevent their being examined with candor, and made uſe of in practice, if they are found to be at all juſt and rational. A want of regularity and elegance in compoſition, may with truth in this caſe, be imputed to want both of experience, and leiſure to ſtudy the correctneſs and embelliſhments of language. He has, indeed, no pretenſions as a writer—but though truth may be adorned by a florid ſtyle, or enforced by elegance of argument, the greateſt deficiency in theſe ornaments cannot invalidate facts, nor juſtify an illnatured criticiſm, on that which made no part of the author's deſign.

It

It may add ſome weight to this little performance, to ſay, that it is the reſult of more than twenty years attention and experience; the writer having, for a long time, invited the poor to his houſe, and even common beggars, the moſt intractable of all patients, and ſuch as either for want of proper food, and cloathing, or from their diſſolute lives, are the moſt unlikely of all to be cured. He affects no other merit than this attention to ſo limited, and in general ſo much neglected, a branch of his profeſſion; to which he was led, ſo long ago, by an inſtance that fell in his way of a cure performed with great eaſe, and without confinement, by a very ignorant empiric, after two eminent ſurgeons had failed in the attempt. The knowledge of this at an early period in life, when youth and inexperience prompt to undertake any thing, having convinced him of the poſſibility of ſuch cures, and led him to the knowledge of many, induced him to turn his thoughts to a ſubject, which he has never ſince loſt ſight of. In the mean time, his education under the beſt of maſters, together with his long reſidence in one of the largeſt, and beſt conducted hoſpitals of this metropolis, as well as his attendance in thoſe of Paris, gave him ſufficient opportunities of ſeeing, that for ſome cauſe or other, the knowledge of compleatly

healing

healing old ulcers in the legs, has been, and ſtill remains very deficient and uncertain. The ſubject, though of ſo great importance to the ſuffering individual, has perhaps not appeared of ſufficient conſequence to eminent ſurgeons, whoſe employment has uſually been both of a more profitable, and agreeable kind. It is hoped gentlemen of this claſs, who deſerve and poſſeſs the higheſt degree of public eſteem and confidence, will not think this an injurious ſuſpicion, eſpecially as the mention of it is principally intended, to ſave the writer the mortification of having his firſt attempt thought inferior to the dignity of a firſt rate practitioner. Beſides, any attempt muſt be laudable to reſcue this branch from the hands of quacks and ignorant pretenders, who it muſt be confeſſed, have ſometimes got credit in theſe caſes, where men of ſcience and a regular education have failed. And here it may be proper, as the former claſs of practitioners needs no increaſing, to add, that the preciſe quantities and forms of ſome of the applications hereafter mentioned, are not ſpecified, but left to the judgment of the ſurgeon; who will find no difficulty in proportioning every active and powerful ingredient, to the nature and variety of each particular caſe.

As

As to the mode in which theſe obſervations are preſented, the preſent was judged the moſt likely to anſwer any good end, for though what the author has to ſay in point of directions, might have been expreſſed in a ſmaller compaſs, or have appeared in ſome periodical publication, he could not, in ſuch a channel, ſo fully ſupport the principles he has laid down, nor juſtify his deviation from eſtabliſhed authorities. He knew moreover, that an attempt had been made in that way, by a gentleman of acknowledged abilities*, which did not ſeem to gain the attention of the public.

With regard to the few hints on ſcrophulous affections, and complaints of the breaſts in *lying-in* women, they are equally the reſult of experience: how far they are worthy the attention of the public, is cheerfully ſubmitted to their conſideration.

In concluding this preface, the author begs leave to urge again his good intentions, and to expreſs his hopes, that the ſucceſs of his plan, may in other hands, be equal to his own; and then he ſhall expect the ſatisfaction of contributing to leſſen the difficulties and diſtreſſes of many afflicted fellow creatures, to preſerve ſome of

* Mr. Elsɛ, Med. Obſerv. and Inquiries, Vol. IV.

them

them from leading miſerable lives, and now and then, prevent that moſt dreadful remedy for bad ulcers, the loſs of a limb.

ERRATA.

Page 21 (note) line 1. for *affectata*, read *affecta*.
27. Line 3, for *clear*, read *clean*.
53. Line 16, for *of patient*, read *of the patient*,
53. Laſt line, dele *and*.
64. Latin note, for *finge*. read *finge*,
66. Laſt line, dele *the*.
71. Line 8, for *an*, read *un*.
93. Line 3, for *and*, read *And*.
120. Line 7, for *ruber*, read *rubr*.
120. Line 9, for *album*, read *vitr. album*.
127. Line 25, for *healed and are*, read *and are healed*.——The author deſires here to apologize for a very manifeſt inaccuracy that was not diſcovered in time for correction, obſervable at pages 56 and 57. Treating there on the ſubject of digeſtion, and attentive only to the mode of Practice, he has inadvertently run into a popular mode of expreſſion, whereby he has appeared to treat That as an Effect, which might, with more propriety, be regarded as a Cauſe. The facts however turn out the ſame, for wherever there ſhall be the laudable diſcharge from an ulcer he has in any caſe ſuppoſed, there likewiſe will there be a kindly appearance of its ſurface; or wherever a copious ſuppuration is brought on that terminates in laudable pus, the means which produced it, by reſtoring a due action of the veſſels, can never fail to induce a florid and healthy appearance of the ſore, and remove the pain and inflammation that attended it; and on this account can never do any harm; nor will a profuſe diſcharge, produced by digeſtives, continue many days after the ulcer has become clean.

INTRO-

INTRODUCTION.

THERE are ſome diſeaſes which derive their importance, not ſo much from their fatal tendency, as from the pain and uneaſineſs they occaſion. Stationary ulcers in the legs, may be juſtly ranked under this claſs. In general, we do not eſteem their cure eſſential to life; but he who is the unhappy ſubject of them, can beſt eſtimate, how much the comforts and enjoyment of it, are impaired by them.

A variety of obſervations might be made on the ſeveral peculiarities of theſe ulcers; but it is by no means the deſign of this work to amuſe the reader with theory on the nature of the complaint, any further than it may be neceſſary, in order to eſtabliſh the means of a ſafe and laſting cure.

In this view, it will be proper to drop a few words upon ulcers in general, and on ſome material differences between thoſe now to be conſidered, and all other

ſores;

ſores; between recent wounds of the legs, occaſioned by ſome accident, and thoſe made on any other part of the body: ſome reaſon there muſt be, for the additional trouble in healing the former, as well as the greater difficulty with which they are afterwards preſerved in that ſtate. This is eſſentially neceſſary in order to form a rational practice, and ſo far as this end is kept in view, it is hoped, an attempt will not be accounted ſuperfluous.

It ſcarcely needs to be obſerved, that ulcers may be occaſioned either by every external accident abrading the ſkin,* or bruiſing the parts underneath, in a certain habit of body, prediſpoſed to ulceration; or by any internal cauſe,† exciting ſuch inflammation in a part as ſhall incline it to ſuppurate, though no external injury was received: ſuch are fevers of different kinds. To theſe ſhould be added neglect, or miſmanagement, when an abſceſs is formed, by which a ſimple wound is converted into an ulcer, or continual ſore of the part.

Theſe are briefly the cauſes of ulcers in general, and where no ſpecific contagion prevails in the habit, are all that need to be conſidered.

In thoſe of the legs, indeed, we are further led to remark the ſtate and circumſtances of the limb, which being a depending and an extreme part of the body, may be regarded as a particular and prediſpoſing cauſe. Its being an extreme part, appears to have a much

* Ulcus eſt continui ſolutio ab erroſione facta.—GALEN.

† Ulceris cauſæ vel internæ ſunt, vel externæ.—PAREY.

greater

greater influence than has generally been imagined, or at leaſt expreſſed by writers on this ſubject, and tends very much to account for the frequency of the diſeaſe, and to point out an indication of cure, which in practice has been entirely overlooked.

But previous to entering upon the cure, it will be proper to make ſome obſervations upon ulcers in general, enlarging a little on ſome peculiarities attending thoſe on the lower extremities.

§ Authors of credit* have uſually defined an ulcer to be a ſolution of continuity in a ſoft part, diſcharging a purulent, or ichorous matter.†

The proceſs of ulceration ſeems to conſiſt in more than a ſimple ſolution of continuity; there is a real loſs of ſubſtance in the ulcerated part. To obtain therefore a more correct definition, I would be underſtood to mean by an ulcer, a ſolution of continuity in a ſoft part of the body, from which an ichorous, purulent, ſanious, or vitiated matter is diſcharged; attended with a loſs of ſubſtance in the part.‡

§ This

---

* HIPPOCRATES excepted, who calls any ſolution of continuity by that name.

† WISEMAN, TURNER, BELL.

"Partis mollis ſolutio purulenta, vel ichoroſa." CULLEN.

"Les ulceres ſont des ſolutions de continuité dans les parties molles, avec ecoulement de pus." *Traité des Tumeurs et des Ulceres.*

‡ SENNERTUS and HOFFMAN give nearly this definition—"Ulcus dicitur ſolutio continui cum imminuta magnitudine, in parte molli,

§ This character may be very applicable to ulcers in general, and be quite ſufficient as a diagnoſis; but many important diſtinctions are to be attended to, which muſt have conſiderable influence in the treatment. It will be quite ſufficient to hint at a few of them.

I. An ulcer may be ſimple, ariſing from external cauſes merely.

II. It may be the conſequence of, or be connected with a bad habit of body; or,

III. It may be owing to ſome ſpecific contagion.

IV. The ſituation alſo of ulcers deſerves our attention. They may affect the ſurfaces of parts, in the manner of an eryſipelas; or partake more of the na-

---

a materia erodente ortum habens. Differunt nimirum in eo vulnus et ulcus, quod in vulnere ſaltem eſt ſoluta unitas, nihil vero neceſſario de parte amiſſum eſt; in ulcere vero ſemper aliquid de parte affecta imminutum et amiſſum eſt, ſi non plus, ſaltem cuticula." Sennertus: lib. 5. pars 2. "Sunt autem ulcera partium ſolidarum, atque mollium cum cavitate quadam minori, ichorem tenuem, ſalſum et acrem fundente, diſſolutiones et eroſiones, a ſero extravaſato, et corrupto originem ducentes." HOFFMAN, cap vi. § 1.

It is evident however, that HOFFMAN, and ſome later writers, deſign moreover by an ulcer, an old, or ill-conditioned abſceſs; and there ſeems to be ſome reaſon for this diſtinction, if we would ſpeak with preciſion; for otherwiſe, every impoſtumation, when burſt or opened, as well as every wound after an operation, is equally an ulcer.—He therefore adds, "Differunt ulcera ab abſceſſibus, tum in hiſce major, quam in illis deprehenditur cavitas, atque non tam ſanies aquoſa, ſalſa et acris, quam potius pus laudabile, bene coctum à ſanguine, in partibus muſculoſis ſtagnante, et mora corrupto, gignitur; licet negari minime poterit, ulcera ſæpe ex apoſtematibus oriri, quæ in principio meri fuerunt abſceſſus." § 2.

ture

ture of a phlegmon, by being ſeated in the ſubſtances of parts.

But it will be neceſſary in this place to remark other diſtinctions, noticed by the beſt writers.

I. An ulcer, it has been ſaid, may be of ſuch a ſpecies, that it will not admit of cure *. This however, cannot often be the caſe, and belongs not to the preſent intention.

II. The ulcer may ariſe from, or be accompanied with ſuch a peculiar ſtate of the conſtitution †, that the patient may be unable to undergo ſuch a diſcipline, as will be abſolutely neceſſary to its cure.

III. A patient's ſtate of health, or peculiar circumſtances in life may be ſuch, that the injunction of confinement and a recumbent poſture cannot be complied with ‡.——The preſent inquiry will be more immediately directed to the treatment of ulcers occurring under theſe laſt-mentioned circumſtances; and as the lenient method is generally injoined with an horizontal poſition of the limb, they will both reſpectively fall under conſideration.

§ Ulcers troubleſome in themſelves, or of long ſtanding, are very often brought into a healing ſtate, by mild means, and abſolute reſt, where no cachectic diſpoſition exiſts ||. If the patient after this lives freely, or uſes much exerciſe, it is highly probable the

* Cancerous, &c. "Ulcera Hydropicorum vix imo ne vix curantur." HIPPOC. Lib. vi. Aph. 45.

† SHARP's Surgery. Introduct. page 29.

‡ Ib. page 38.—|| Ib. page 31.

ſore will break out again. In ſuch a caſe, it may be ſaid the perſon was cured, but he was not reſtored to ſociety. A very natural inquiry ſuggeſts itſelf here, viz. Is this the only rational method of treating ſuch ulcers?—If it can be proved, that a ſtrict courſe of regimen is generally unneceſſary, and that abſolute reſt is often not only needleſs, but prejudicial; if it can be demonſtrated, that by a different mode of treatment, they may be as certainly, and often as ſpeedily cured, and without danger of relapſe; it becomes a ſubject highly deſerving the attention of every practitioner.

It has been obſerved, and long been a decided opinion, that wounds or ulcers, ſituated on the lower extremities, below the knee, do not generally heal ſo kindly as thoſe on the upper parts of the body *. Various reaſons have been aſſigned for this laſt-mentioned fact; and as principles are more or leſs connected with practice, it will be very proper to glance ſlightly at this ſubject, which will bring forward the immediate object of inquiry.

Theſe extremities being depending parts, a ſtagnation of the circulating fluids has been offered by ſome as an explanation; whilſt others have attributed it to a deſcent of depraved or vitiated humors †.

It

* It is a maxim in ſurgery, that abſceſſes and ulcers, will have a greater or leſſer tendency to heal, as they are higher or lower in the body. SHARP's Introduct. page 17.

† See WISEMAN, TURNER, SHARP.

Galen de Ulceribus malignantis Naturæ. Talia enim appello, in quibus

It is ever of the utmoſt conſequence, to ſeparate facts from hypotheſes. Our knowledge is actually increaſed by the one; we are not certain gainers by the other. Effects are obvious to every attentive obſerver, but cauſes are often latent and dubious.

The firſt theory cannot be admitted; as its proximate cauſe is, by no means, a conſtant attendant on ſore legs. Ædema ſometimes precedes, ſometimes accompanies, and often ſeems to be a conſequence of ulcers; but is only one evidence amongſt others, of cachexy.

The ſecond enumerated cauſe ſtands merely on an hypothetical baſis. 'Till we get more diſtinct ideas of what is meant by vitiated, or depraved humors, and have their exiſtence demonſtrated, it ought not to be admitted as the occaſion of the difference in queſtion; eſpecially as this difference is capable of being leſſened, merely by topical applications and exerciſe, as I ſhall ſhew in its proper place.

§ Without preſuming to ſolve the difficulty, a few hints on the ſubject, may not prove unworthy of attention.

---

quibus aut pars affectata tam vitioſo habitu eſt prædita, ut vel optimum ſanguinem, qui nutritionis gratia confluit, corrumpat: aut id quod influit, adeo perverſum exiſtit, ut etiamſi pars rectè ſe habeat, ab ipſo tamen ſolo erodatur. (de comp. med. lib. 4.)

Ambrose Parey, on the cacoëthic ulcer, copies after *Galen:* "influentem corrumpit humorem," (ſays he) and on the cachochymia—"propter influentis ſanguinis, partem exedentis, pars affecta nimium humida non coaleſcit." Lib. xii. cap. x.

I. The living power of the animal exiſts in greateſt quantity neareſt the heart. In proportion to the different diſtance of parts from this centre of life, the circulation of the blood is more languid, the animal heat is at a lower temperature, and the animal functions are more liable to interruption. But the healing powers depend greatly on the general, or relative vigor of the ſyſtem: If therefore, the vital energy diminiſhes, at a diſtance from the centre, ſhall we be ſurprized to find, that the vis medicatrix (which owes its ſalutary power to the ſame cauſe) is diminiſhed likewiſe?

II. In the lower extremities there is diffuſed much tendinous or ligamentous membrane. This kind of ſubſtance, though not void of ſenſibility, poſſeſſes a very ſmall ſhare of it; its blood veſſels are ſcarcely viſible unleſs rendered ſo by diſeaſe, and in that ſtate, it acquires a high degree of irritability. The ſtructure of the parts therefore, may in ſome caſes, have conſiderable influence in retarding the cure of ulcers. And perhaps the depending poſition of the limbs, though not ſufficient of itſelf, may in ſome degree co-operate with other cauſes, in producing the evils complained of.

When an ulcer on the lower extremities, tolerably free from inflammatory ſymptoms, and unconnected with cacoëtic, or ſpecific affection of the ſyſtem, becomes intractable under the moſt prudent management, it is highly neceſſary to know the cauſe: Inquiſitive men have, indeed, aſſiduouſly inveſtigated it, but to how little purpoſe, the ſucceſs, or rather the want of ſucceſs in general practice, too evidently demonſtrates.

—I will

—I will venture to ſuppoſe, that the moſt probable cauſe is a defect of vital energy either general or local. If general, which it is of importance indeed to determine, and an atonic ſtate of the ſyſtem prevails, that plan muſt be purſued, which is moſt likely to produce a ſtate of general ſtrength; but if the cauſe be merely local, our views muſt be very different. It muſt then be treated as a diminution of action in the part. Not that it is meant to ſuggeſt, that thoſe two cauſes cannot exiſt together; they very often meet in the ſame ſubject. But it is proper to obſerve, that they may, and often do exiſt ſeparately. Nor are we to conclude, that becauſe our treatment has a tendency to ſtrengthen the patient, the deſired end will always be obtained. There may be a ſufficient quantity of power in the conſtitution to overcome a diſeaſe, though that power be not fully exerted. It is often neceſſary to rouſe nature to action, by the external uſe of ſtimulants. But in doing this, it will be well to obſerve, that as we have a certain end in view, our means muſt be adequate. Stimulating applications may be ſo uſed, as to fret or irritate the part, without the leaſt good effect; nay, with very bad effects. If the power and action of the part be not rendered ſuperior to the diſeaſe, every ineffectual effort of nature will increaſe it, and conſequently retard the cure.

Perhaps the irritation ariſing from motion, may in this view, be accounted one kind of hurtful ſtimulus, when applied to ulcers on the lower extremities. A perſon affected with this kind of ſore, though he ſhould

not entirely confine himſelf, will be diſpoſed to walk leſs than uſual, and to give the leg ſome little indulgence. The ſtimulus, thus irregularly applied, excites the veſſels to an increaſed action; pain becomes conſiderable; the ſurrounding parts are inflamed; and the diſcharge is increaſed.—He reſts.—Nature was making efforts to give a new ſurface to the ulcer, but the ſtimulus, which excited her to action, being withdrawn, her attempts are partial and ineffectual. And as more or leſs of loſs of ſubſtance, always precedes the ſhooting of granulations, perhaps only the firſt part of the proceſs is compleated; hence the ulcer is more foul, is deeper, and more extenſive than before. All theſe evils are attributed to the motion of the part, and abſolute reſt is deemed a neceſſary requiſite towards obtaining a cure.—Whether this be as evident as it hath been generally imagined, is a matter very much to be doubted indeed, and is worthy of further inquiry.

§ It appears then to be rational, as well as agreeable to experience, to ſuppoſe, that from the legs being depending parts of the body, the only, nor the chief obſtacle to the cure of ulcers does not ariſe, but as hath been obſerved, from their being extreme parts, where the circulation is leaſt vigorous. Hence it is, that the complaints of younger people are chiefly confined to the head and upper parts of the body, which at a more advanced age, uſually affect the lower; and it frequently happens, that ſuch as have had diſorders of the eyes when young, are afflicted with fiſtulæ in ano, or ſore legs, when they grow older; the circulation of the

the blood through the more extreme parts, and their conſequent tone, being then impaired: and every ſurgeon knows how much more frequently a gangrene is found to ſeize the feet or the toes, than any other part of the body. For although the fingers, with their veſſels equally ſmall, are at a conſiderable diſtance from the heart, yet the circulation in them is more vigorous, both on account of their veſſels coming from the beginning of the aorta, and the continued exerciſe from their more conſtant uſe. The lower extremities being ſtill further diſtant, and not ſo much engaged, have theſe diſadvantages compenſated by the exerciſe nature impoſed upon them, in the ſupport and conveyance of the whole body; for the want of which neceſſary ſtimulus, in indolent and ſedentary people, the circulation becomes too languid to preſerve their due tone. From this cauſe, as well as from the anatomy of their parts, it is eaſy to account for the ſwelling of the feet and ancles, ſo common in ſuch perſons, as well as for that which happens from the limb having been kept, for any length of time, in an horizontal poſition: for here, whilſt the moles movenda is great, the vires moventes are diminiſhed.—It is therefore preſumed, that exerciſe being ſo neceſſary to ſupport general health, and particularly the vigor of the extremities themſelves, (ſo far from being poſitively detrimental,) muſt, under proper management, be conducive to the healing of ulcers ſituate upon them. Hence it will appear to be the province of art, to deviſe ſome proper means to regulate the effects of exerciſe, rather than to aim at a cure ſome other way, by ſubverting the order of nature,

and

and depriving the patient, for a time, of a neceſſary mean of ſupporting, or recovering his health; which pernicious cuſtom, it is preſumed, is one principal occaſion of the difficulty in queſtion.

§ The nature of the ulcerative proceſs next deſerves our conſideration. When from ſome cauſe, external or internal, ulceration takes place, a very uſual way of accounting for this ſolution of continuity has been, that there is a melting down of the ſoft parts into pus, ſanies, &c.* Experiments on dead and living ſubjects have been made to prove this; yet it is apprehended, this proceſs never takes place in the living body; it is a proceſs that contradicts every thing we know of the animal œconomy, and the obſervations of the moſt accurate phyſiologiſts.

The perfect ſolution of a ſoft part, even when removed from the body, is not eaſily effected by art, unleſs it be immerſed in cauſtic liquors; much leſs have we ever ſeen muſcular fleſh, and cellular membrane converted into a fluid reſembling pus. Simple diviſion of a living fibre, does not neceſſarily produce the death of

---

* "Vaſcula diſtenta rupta cum dolore, calore, pulſu, liquores ſuos effundunt, ſolvunt, putrefaciunt leviter, ſolida tenera atterunt, ſolvunt, fluidis miſcent in unum ſimilem album, ſpiſſum, glutinoſum, pinguem humorem, pus dictum." Boer. aph. 387.

"Pus or matter is certainly no natural ſecretion.—I believe I may venture to affirm, that the diſſolution of ſome of the ſolid particles of broken capillary veſſels, and a mixture of ſome part of the juices that ſhould circulate through them, makes a neceſſary part of the production. Pott, vol. i. p. 315.

that

that fibre: but decompoſition, either by the putrefactive fermentation, or by art, never can take place, without depriving the affected part of its life. Moreover, as the purulent matters diſcharged by ulcers, differ in their chemical properties from dead animal fibres in a ſtate of diſſolution, we are certainly not authorized to conclude, that there is a ſimilar arrangement of particles. Beſides we ought to find the moſt profuſe diſcharge from an ulcer during the exfoliation of its ſloughy covering; whereas the reverſe of this is really the caſe. An ulcer never pours out ſo large a quantity of good matter, as during a few of the firſt days after its ſurface has become clear. And every practitioner muſt recollect having ſeen caſes, where the dimenſions of an ulcer have been increaſed to twice its ſize, in the ſpace of a few hours, without ſuch a proportionate increaſe of the diſcharge, as we ought to expect under the idea of diſſolution.

The proceſs of ulceration ſeems to be a certain act of the abſorbent ſyſtem, whereby in conſequence of a ſtimulus, it takes up the ſoft parts, and carries them into the circulation*. No anatomiſt can doubt the poſſibility of this, when he conſiders that ointments, and even powders are readily abſorbed, eſpecially where there is a want of cuticular covering†. If this

* Phyſiology, I believe, is indebted to the ingenious Mr. Hunter for this no leſs probable, than curious idea.

† See Mr. CRUIKSHANK's letter on the abſorption of calomel, to whom the world is no leſs indebted for his indefatigable attention to, and uſeful diſcoveries in the abſorbent ſyſtem,

account

account of the matter be admitted, we ſhall be aſſiſted in underſtanding the cauſe of the rapid progreſs of ulceration, the exfoliation of dead ſoft parts, and deſquamation of carious bone.

§ But this idea of ulceration ſuggeſts a very natural inquiry, viz. From whence comes the purulent matter diſcharged by ulcers? It has been ſaid, that ulcers are drains to carry off peccant humours*; or diſſolved cellular and muſcular ſubſtance†; we have been told indeed, that pus exiſts in the blood, and is poured forth at theſe outlets.—The laſt-mentioned idea is in itſelf ſo improbable, and ſtanding unſupported by any deciſive proofs, it may be regarded merely as hypothetical.—A few remarks on the former will naturally ariſe in the further diſcuſſion of the ſubject.

"The moſt probable opinion," (ſays a very ingenious and reſpectable author ‡) "hitherto advanced, concerning the formation of pus is, that it is always produced

---

* "Ulcers may be looked upon as drains which nature has made choice of to relieve herſelf." LE DRAN.

† "Pus is a mixture of various ingredients, viz. blood, which has loſt its red colour, and is the largeſt ingredient in the mixture; a little viſcid lymphatic juice, and the extremities of the lacerated veſſels, which fall off in ſmall parcels, and are converted into a ſoftiſh and whitiſh kind of glue." FIZEZ on Suppuration.

"Si ſanguis in ventrem effuſus fuerit, præter naturam, neceſſe eſt ut ſuppuratur. HYPPOC. aph. 20. lib. 6.

"Hoc enim parte caro putreſcit et exulceratur, et accedentem pituitam et bilem, inſuper putrefacit, et fit pus." Id. de morbis. Lib. 2.——See alſo CULLEN.

‡ BELL on the Theory and Management of Ulcers, &c.

by

by a certain degree of fermentation in the ſerous part of the blood, after its ſecretion into the cavities of ulcers and abſceſſes." This opinion ſtands ſupported by the moſt reſpectable authorities †, but is not free from difficulties. Serous effuſions made from a ſurface, that is not in a ſtate of inflammation, will remain for months unchanged, and never aſſume the appearance of pus ‡. More or leſs of inflammation || ſeems abſolutely neceſſary to its formation. It may likewiſe be obſerved, that the nature of the diſcharge depends greatly upon the healthy, or unhealthy ſtate of the ſore. Perhaps then, it may approach nearer the truth to ſuppoſe, that pus is a ſecretion ſui generis, from the ruptured veſſels of a cavity, or ulcerated ſurface, conſequent on a certain degree of inflammation, poſſeſſing

---

† "May we not therefore conclude, that the ſerum is perpetually oozing into ulcers, but that from the heat of the part, and the volubility of our fluids, it is all abſorbed or evaporated, excepting this matter that remains in the ſore, in the form of pus." Sir JOHN PRINGLE, Appendix, page 72.

'If the increaſed impetus of the blood in an inflamed part dilates the exhalent veſſels to ſuch a degree, that they pour out an entire ſerum,—under ſtagnation, the ſerum may undergo a particular change, by having the gluten preſent in it, changed into a white, opaque, moderately viſcid, mild liquor, which we name pus." Dr. GEORGE FORDYCE.

‡ The water in hydrocephalus internus, aſcites hydrocele, &c. which is generally coagulable.

|| "When a quantity of fluid is thrown out into any cavity, (the inflammation continuing) it ferments, and is converted into pus." Dr. GEORGE FORDYCE.

originally

originally the moſt bland and ſalutary qualities §. Not that it is meant to be underſtood, that pus is ſecreted in the form under which it appears, but it is probable, that when it covers the ſurface of a wound, under the appearance of an adheſive glairy fluid, the only difference between this and white pus conſiſts in the quantity of ſuperfluous water. When, by remaining for ſome time upon the part, the thinner fluid

---

§ It is not neceſſary, that a part ſhall have preciſely what we underſtand by a glandular ſtructure, in order to ſecrete fluids for particular purpoſes. The mucous membrane, which lines every cavity expoſed to the action of external air, ſecretes a fluid called mucus, for the defence of that part, &c.—This, in a healthy ſtate, is mild and inodorous, and much reſembles the white of an egg, which is perfectly inſipid; and conſequently, can be little more than a mucilage and water. Whereas ſerum contains neutral ſalts in abundance; ſuch mucus therefore cannot be effuſed ſerum. If it were merely ſerum, it would be more irritating as its conſiſtency increaſed; the reverſe of which is the caſe. When morbid ſecretion takes place, as in catarrh, gonorrhæa, &c. the effects of the neutral ſalts in the ſerum poured out, are pretty evident. Now, theſe diſeaſes cannot increaſe the quantity of ſaline matter, conſequently, we muſt ſeek for the cauſe of this acrimony in the different action of the veſſels.—Theſe variouſly excited, by external or internal ſtimuli, to irregularities in their action, may likewiſe aſſiſt us in our inquiries after the cauſe of the various appearances and qualities of pus, and of the difference between that and ſuch morbid ſecretions from an inflamed ſurface, as aſſume a purulent appearance.—With regard to the latter diſtinction, it may be worthy the attention of phyſiologiſts to conſider, how far the ſimple inflammation of a ſurface, may poſſibly be inadequate to the production of true pus; and whether an eroſion, or loſs of ſubſtance may not be eſſential to that particular ſecretion.

is

is abſorbed, or exhaled, the remaining part aſſumes opacity, and acquires a thicker conſiſtence; for if wounds, furniſhing a great quantity of good pus, are examined a few hours after being dreſſed, no ſuch matter as pus will appear; but a thin, ill-looking ſanies is ſpread over the ſurface *.—In ſhort, the formation of true pus, and the putrefactive fermentation of animal ſubſtances, bear no reſemblance to each other, ſince pure pus is perfectly inodorous, whilſt the other emits a volatile alkali. Nor do we find, that matter diſcharged from a wound bears any regular proportion either in quantity, or quality, to the ſuppoſed degree of fermentation. If we only attend to the different aſpect of an ulcer, when it produces pus, ichor, or ſanies, whether we reaſon analogically, or from evident appearances, the idea that has been thrown out, of the healthy or morbid action of the veſ-

* From hence, a fallacy is diſcerned in the ingenious theory of the late Mr. Freke, though it is a much more probable one than that of concoction, or what is uſually meant by fermentation. He humorouſly obſerves, if it can be ſhewn, that any part of the blood, put into a ſand heat, and digeſted there, or that decocting it ever ſo long, produces any thing like concocted matter, he will give up the belief of his own opinion, viz. that pus is produced by deſpumation, or agitation, from the ſerum of the blood paſſing through the partially obſtructed extremities of divided, or ruptured veſſels, which like a ſponge, reſiſting a free paſſage to the globules of air contained in the blood, beats up the ſerum in its paſſage into a froth, juſt as ſoap and water would be by a like agitation.—ART of HEALING.

ſels, as the moſt probable cauſe of this difference, appears, by no means, to be an unreaſonable conjecture †.

But the idea of true pus being a diſſolution of the muſcular and cellular ſubſtance, &c. may from its great popularity, ſeem to demand a little further attention. In ſupport of this opinion, we are told, that in every collection of matter, there is actually very conſiderable loſs of ſubſtance in the part, and for proof of it we are pointed to the cavity from whence the matter has flowed on the burſting, or opening of the abſceſs, and to the diſappearance of the cellular and adipoſe membrane; the greateſt part of which however, ſeems only to be condenſed. To examine this point a little more narrowly, let us take a view of it where the fact ought to be the moſt evident, as in the caſe of large impoſthumations, ſuch as the pſoas abſceſs; from whence a pint, or more, of matter has run out on the giving way, or opening of the integuments. In ſuch caſes, has there been a deſtruction of muſcle, veſſels, cellular and adipoſe membrane, equal to the quantity of pus, or the cavity that is formed? What! a pound of muſcle and adipoſe membrane deſtroyed ‡? A bulk, equal to a pint, or more, of matter?—We may, indeed, find the

† How frequently is it in our power, to alter both the appearance and the quantity of matter diſcharged from a ſore, not only by medicines, but merely by external applications?

‡ Experiments on living animals have lately been made to ſupport ſuch an opinion.

muſcles

muſcles ſeparated one from another, and the cellular membrane torn away by the weight of the fluid; or ſometimes a muſcle divided longitudinally, or its belly eaten through; but the idea of a whole pound of organized parts being loſt, or melted down into matter, is really much more improbable than any thing that has been advanced concerning the formation of pus, or doctrine of the abſorption of parts into the conſtitution. For whatever has been ſaid on the latter, is merely to account for a loſs of parts, which ſometimes actually diſappear in the proceſs of ulceration; but the former opinion ſuppoſes a quantity of parts to be deſtroyed, (in order to account for exceſſive ſuppuration) where there is no ſuch manifeſt diſappearance. But, moreover, in large collections of matter, there is not only a prodigious diſcharge on the firſt burſting of the abſceſs, but it often continues immoderate for days, and even for months, till the patient is deſtroyed by it. But upon opening the body, only a very ſmall portion of muſcle appears to be loſt, and there is little, or no more deficiency of adipoſe membrane in the part, than throughout the reſt of the body the whole being in ſuch caſes exceedingly emaciated; and the fat ſuppoſed to have been abſorbed. To ſum up the whole, it appears, that in the former inſtance of the ſudden ſpreading of an ulcer ||, the diſcharge is, by no means, proportionate to the great loſs of parts;

|| Page 27.

and in the preſent, there is not a loſs of parts proportionate to the immoderate diſcharge.

But it is ſaid by others, that there is not, indeed, ſo great a diſſolution of ſolid parts, as to furniſh the whole of theſe purulent matters, but ſo much of them is melted down as gives tenacity to the fluid; and is an eſſential ingredient in true pus §. Beſides what has been already advanced in anſwer to this latter aſſertion, it may be obſerved, that wherever there is an evident admixture of fat, or of the craſſimentum of blood; or the parts are in a lax and ſloughy ſtate, the pus is never good, but always thin, diſcoloured, or fœtid. Whereas, when the ſuface of an ulcer is firm and florid, without the leaſt appearance of the melting down of parts, (as it is called,) there, it has been obſerved, the pus is thick and good; there only is it album læve et æquale.

Moreover, if the diſſolution of organized parts, does not furniſh a very conſiderable portion of the purulent diſcharge, it can ſupply only a very ſmall part of it, as is manifeſt from what has been ſaid above on the ſtate of the parts, as they appear in thoſe who die of an atrophy, in conſequence of very large incurable abſceſſes. And if ſo little of the pus can be furniſhed by the diſſolution of ſolid parts, and its true purulent appearance be not occaſioned thereby, the difficulty is not removed, and the queſtion returns, viz. how is pus formed? —a queſtion I have attempted to anſwer, and which

§ Boerhaave, Mr. Pott, &c.

for

for any thing that has as yet been advanced to the contrary, may prove full as ſatisfactory and rational, as any other account that has been given of the matter.

§ When the conſtitution has, at a certain time of life, been long accuſtomed to the preſence of an ulcer in ſome part of the body, practitioners have been much divided about the propriety of attempting a cure. It has been deemed improper to heal it, without ſubſtituting a drain in ſome convenient part, in its ſtead. This opinion is founded partly on theory, partly on obſervation. If we regard old ulcers as drains, or outlets for vitiated humors *; the evacuants of a conſiderable quantity of fluids, where retention muſt diſorder, or overload the ſyſtem, and induce plethora †, &c. ſuch ideas muſt naturally produce a doubt of the expediency of effecting ſo important a change. Facts are not wanting to prove that diſagreeable, and even fatal conſequences, have followed the drying up of long continued ulcers, and even of iſſues ‡.—Though the facts cannot be denied, the explanation given of them may be called in queſtion ||.

* A meſure qu'on travaille à guérir l'ulcere, it faut avoir ſoin d'ouvrir un cautere à la partie qu'on jugera le plus convenable, pour donner aux mauvaiſes humeurs un èpanchoir à la place de celui qu'on va boucher. *Traitè des Ulceres &c.*.

† See BELL on Ulcers.

‡ Le DRAN's Obſervations.—SHARP's Surgery, Introduction.

|| Ulcera diuturna et inveterata non ſine periculo curantur, niſi corpus diligenter purgetur, et victus ratio bona obſervetur; cujus rei

We know that in many caſes, very ſuſpicious a priori, ulcers have been dried up, not only without bad conſequences, but where very conſiderable advantages have enſued. Whereas, fatal accidents have ſometimes taken place after the cautious healing of more recent ſores in apparently good habits of body; which would ſcarcely have been attributed to ſuch cures as to their proper cauſe.—The *poſt* Hoc and *propter* Hoc, it is well known, require a judicious diſcrimination.—Where, indeed, there has long been a very profuſe diſcharge of matter, a ceſſation of the accuſtomed evacuation may have ſome influence. But if particular caſes are excepted, it is more than probable, that the effect of ulcers upon the conſtitution, is not to be imputed to the quantity, much leſs to the quality of the matter diſcharged by them; which it is likely, depend on the ſtate and action of the veſſels of the part, where at leaſt, there is no ſpecific contagion. No opinion is more popular, than the exiſtence of humors in the blood; and perhaps very few opinions have leſs foundation in fact. The ſerum of blood may differ in conſiſtency, and contain more or leſs ſaline particles; the red globules may exiſt in greater or ſmaller quantity; the coagulating lymph may vary in its relative propor-

---

rei exemplum habet Gal. Fabricius, de quodam viro qui cum ulcus inveteratum in crure ſiniſtro ab impirico ἀμεθοδῶς curatum fuiſſet, poſt menſes aliquot pleuritide in ſiniſtro latere correptus, atque in de mortuus eſt, et morbo durante *talia* expuit, *qualia* antea ex ulcere effluere ſolebant.

SENNERTUS Lib. 5 Prognoſtica.

tion

tion to the watery parts of the blood—if we advance much further, we are treading merely on hypothetical ground.

Nor are we warranted to conclude from obſervation, that quantity ought to influence us much more in the healing of ulcers. Are the effects of ulcers upon the conſtitution, by any means, proportionate to the quantity of matter diſcharged by them? Do we not ſee, that the ſpecies of ulcer, and its ſeat, very often determine its harmleſs, or miſchievous tendency? Were we always to form our prognoſtic of the termination of ulcers, from the quantity of ſurface they occupy, or the fluids they diſcharge, every day's experience would prove the fallacy of ſuch a prognoſtic. Small ulcers (unattended with caries of the bone) may bring on hectical ſymptoms, and the amputation of the whole limb ſhall ſave the life, and reſtore the health of the patient.

§ The ill-effects which ulcers have upon the conſtitution, ſeem to ariſe from irritation, and the conſequent general ſtate of exertion into which the ſyſtem is thrown. When the diſcharge is very profuſe, inanition is produced; but ſimple inanition is not a proximate cauſe of hectic fever; nor of ſymptoms of irritation *.

* Wounds of the tendons, ligaments, cartilages and the cavities of joints, are more liable to be attended with ſymptoms of irritation, than the inflamnation of other parts: by ſuch ſymptoms therefore are meant,

The ſyſtem being kept in a perpetual ſtate of tenſion, by the conſtant ſtimulus of an ulcer, and nature fruitleſsly exhauſting herſelf to ſubdue an obſtinate diſeaſe, will ſufficiently account for that train of ill ſymptoms, which ſometimes accompanies ulceration *.—But though ſtimuli, in certain habits and under certain circumſtances, may prove detrimental to heath, yet in many inſtances, we find them excellent remedies. The good effects of bliſters and cauſtics, applied near the ſeats of diſeaſes, are generally known; yet we do not ſuppoſe, that there is any ſpecific virtue in cantharides, neither do we regard them as the evacuants of vitiated humors. It is a fact pretty generally admitted, that however plentifully a bliſtered part may pour out its ſerum, it is often more advantageous to heal the ſore, and apply a freſh ſtimulant, than to keep it open by mild digeſtives. If the good effects of bliſters, therefore, be admitted upon theſe principles, why reject this reaſoning in the caſe of ulcers, which may not improperly be termed perpetual bliſters or iſſues?

The effects of ulcers upon the conſtitution in general, being thus hinted at, the main queſtion may be re-

---

meant great depreſſion of ſtrength, anxiety, frequent reſpiration, quick and ſmall pulſe, a tendency to delirium, or ſpaſmodic affections of the muſcles. Theſe ſymptoms do not indicate a diſeaſe of the general ſyſtem, but depend upon the preſence of an irritating cauſe; and when the cauſe is removed, the effect immediately ceaſes.

* Natura enim, ſemper ſolicita eſt in conſervatione individui ſui, morbiſquè ſeſe opponit; ſed prout valida aut imbecillis fuerit, aut victrix evadit, aut ſuccumbit. HILDANUS. Obſerv. Chirurg. 77.

ſumed,

ſumed, viz. Is it always proper to attempt the cure of ulcers? Were a general and direct anſwer to be offered, it might be given in the affirmative.—If a caſe occurs (which is not improbable) where upon the whole, it may be judged a leſſer evil to let the ulcer remain, than to attempt its cure; yet if its extent of ſurface be very conſiderable, it will be prudent to leſſen its dimenſions. To this may be added, that as the ſeat of an ulcer, however ſmall, may be in a very inconvenient part of the body, an iſſue † may, in many ſuſpicious caſes, be ſubſtituted in its ſtead ‡; which if this reaſoning be valid, will much oftener than it is imagined, have the ſame good effect. Whether, therefore, we regard the operation of ulcers as a drain, or as a ſtimulus to the ſyſtem, there can ſeldom be any reaſonable objection againſt healing them.

The preceding obſervations are natural, they are founded on facts, and it is hoped, they will ſupport the inference intended to be drawn from them. Many of them almoſt inſenſibly occurred to the author in the courſe of his practice, nor did he diſcern half their force, till repeated experience conſtrained him to attend to them, and forced on his mind ſuch reflections as led

---

† In all theſe caſes, it is proper to purge once or twice a week with calomel, if the patient can bear it, and to make an iſſue, when the ſore is almoſt healed. SHARP, Introduction, p. 40.

‡ LE DRAN, BELL. The latter has ſome obſervations tending to prove, that the diſcharge from a common iſſue is uſually much greater than is generally imagined.

to ſupport them. Be it obſerved, however, once for all, that ſucceſs preceded his reaſonings, and if he has failed in his theory, the facts ſtand the ſame, and every man is left at full liberty to give a better illuſtration of them. He concludes it, indeed, far ſafer, even induſtriouſly to invent a ſpecious theory in ſupport of experience, than to found a practice on mere metaphyſical reaſonings, however ingenious they may ſeem. If he has erred, he has erred on the ſafe ſide, and cheerfully ſubmits both his principles and practice to the judgement of others.

A

TREATISE

UPON

ULCERS of the LEGS, &c.

THE intentions in the treatment of ulcers on the legs, have been principally two; namely, to bring thoſe into an eaſy, harmleſs ſtate, whoſe perfect cure ought not to be attempted, or cannot be obtained: or ſecondly, in the moſt ſafe and rational way, to accompliſh it in every ulcer not under thoſe circumſtances.

Whether there be many ſuch caſes as the former, where, at leaſt, there is not manifeſt diſeaſe of the viſcera, I ſhall not take upon me any longer to diſpute; and however numerous they may be, the known rules of art are fully ſufficient for every thing that ſeems to be expected from it. I may, however, venture to add, that perhaps nothing will co-operate ſo much with the firſt-named intention, as the bandage hereafter

hereafter to be mentioned, drawn moderately tight. It is the latter then that will be the ſubject of theſe pages, including ſome of thoſe which have been judged incapable of cure, or of being long preſerved in that ſtate.

To purſue this intention more perfectly, it will be neceſſary to take a brief view of the moſt uſual methods of cure, with the internal remedies on which ſurgeons have at different periods principally relied. And here a large field for diſputation would open, if notice were taken of every thing that has been in vogue, or has had ſome warm advocates even from the preſs. But I ſhall only glance at ſuch things as have not been generally adopted, and ſhall chiefly confine my obſervations to thoſe in great credit amongſt ſurgeons of reputation, who the author of this little eſſay wiſhes may peruſe it with the ſame degree of candor, that he has meant to exerciſe of modeſty and reſpect, in the liberty he has taken in differing from them in opinion. He cheerfully acknowledges the ſuperior abilities of many of thoſe who may be his readers, as well as their more extenſive experience in the general practice of ſurgery—he thinks, however, he has ſome improvements to offer on the article of ulcers, though there is perhaps no other, in which he ſhould not think it ſufficiently honorable to ſay, I præ, ſequar, ſi non paſſibus æquis.

Amongſt the internal remedies once in great repute with ſome practitioners, are the SOLANUM, NITRE and CICUTA; of the latter, which has been tried in ſo many complaints, little more need be ſaid in this day, than that it hath failed of that general ſucceſs we were once made to expect, in any of thoſe for which it was at firſt

ſo

ſo highly recommended; though it is well known to many people, that the materia medica has been enriched by the addition of it. Although an uncertain medicine, it now and then proves a moſt valuable remedy. In the hands of judicious phyſicians, and particularly thoſe great ornaments of their profeſſion, Dr. *Warren*, and the late Dr. *Fothergill*, many ſevere anomalous complaints have been immediately relieved by it*, after having withſtood every rational means that could be thought of.—The cicuta, however, is no ſpecific for ſore legs, and though it may have its uſe as an anodyne, in a few caſes hereafter to be mentioned, it will be ſufficient to obſerve here, that it hath done but little in the cure of ulcers of any kind.

The SOLANUM, I believe, has been long exploded, as a remedy not at all to be depended upon, and would not have been mentioned here, if great things had not once been ſaid of it. It appears, however, to have had its uſe in ſome caſes, which I was witneſs to many years ago, when houſe-ſurgeon to St. George's Hoſpital, but it is certainly much too powerful and uncertain a remedy for general uſe, and there never was found any rule

* Of this, the writer of theſe pages was perhaps one of the moſt fortunate inſtances, when under the care of Dr. WARREN for a moſt ſevere and painful affection of the face. And he hopes he ſhall not offend that eminent practitioner, by taking this opportunity of publicly acknowledging, the very great obligations he has been long under to his friendſhip and ſervices; and as, by no means, the leaſt of them, that he has been more than once, the kind inſtrument of prolonging the valuable days of his neareſt relative, and choiceſt comfort in life.

by

by which to judge of the probability of its ſucceeding, unleſs it may be ſaid in caſes attended with great pain; and herein it is not only far leſs certain than opium, but much inferior to the cicuta. It may however, be adminiſtered with ſafety for a few days, and will often produce a florid ſurface on an ill-conditioned ſore.

Nitre was a few years ago recommended in the cure of ulcers*; and having been long regardful of every thing that promiſed relief in theſe complaints, I was readily diſpoſed to attend to it. After a fair and repeated trial of it, I can venture to ſay only, that it is likely to be uſeful upon the lenient plan, as it certainly co-operates with the intention there purſued, of reſt, evacuations, &c. by its known quality of leſſening ſenſibility in the nerves of the ſtomach and the general ſyſtem, and thus making the fluids circulate more ſlowly: but it has been obſerved †, that the cure of ulcers, when accompliſhed by ſuch means, is ſeldom permanent. Moſt of thoſe which were large broke out again whilſt I perſevered in the uſe of it, which I have ſince cured on another plan, as I believe, without danger of relapſe. Beſides, the poſſibility of ſuch a medicine, in large doſes long continued, producing ſome unpleaſant effects in certain conſtitutions, may be conſidered as another objection to its general uſe. It is indeed a well known and powerful diuretic, but when taken in the large doſes preſcribed, its temporary good effects, I apprehend, are not ſo much to be attibuted

* Dr. Rowley on Ulcers in the Legs.

† Vide the Introduction.

to

to this as to its ſedative powers. In more moderate doſes, however, it may be adminiſtered in thoſe caſes, wherein the above remedies are evidently called for, as where an inflammatory diatheſis prevails in the habit, or perhaps the limb only is greatly inflamed; nitre is in ſuch caſes a moſt powerful medicine, and may be uſed together with gentle purges, for a certain, but probably ſhort time, to advantage.

Before I proceed to make further inquiries into the uſe of internal remedies, it may not be amiſs to take ſome notice of other modes of treatment, which might not be thought worth mentioning, but for their great reputed ſucceſs.

One of theſe conſiſts of frictions, and though it may be accounted in ſome degree empirical, probably ſome good may have been done by it. And it ſo far coincides with the preſent plan, as it proves a ſtimulus, ſupplying the defect ariſing from the languid circulation in the extremities. It will thereby liberate the parts, and open the fine veſſels terminating on the ſkin*; but there is ſomething ſo painful (as I am told) in the operation, and ſo inelegant and inartificial in the mode, that no ſurgeon will probably ever adopt it.

There are however people in London, who effectually cure ulcers in the legs without confinement, or

---

* Defrictio poteſt ſolvere, ligare, incarnare, minuere; dura ligare: mollis ſolvere: multa minuere: moderata craſſefacere.
HIPPOC. Officin. Med.

regulation

regulation of diet, ſome of them with, and others without the uſe of tight bandages; one of theſe makes free uſe of the mercur. corroſiv. rub. and as it appears, with very good ſucceſs. But where no bandage has been applied, the ulcers are apt to break out again; ſome of which I have attended afterwards, which now remain perfectly well.

Another method among ſuch practitioners, is that of bathing the limb in aſtringent liquors, or applying aſtringent lotions or dreſſings. And indeed ſuch a practice in ſome caſes, with certain limitations and additions, ſeems more intitled to attention, than many other external applications; though it is capable of doing great miſchief in the hands of empirics. This method however, as far as I have been able to trace it, does nothing without very tight bandage or reſt.

Beſides theſe methods, there are others which have been uſed in different parts of the kingdom, not without ſome ſucceſs; but ſo much pains has been taken to conceal them, that their good effects are neceſſarily very limited. Amongſt theſe, the moſt remarkable that has come to my knowledge, is that practiced by a reſpectable gentleman not of the profeſſion; and ſhould he think proper to make the public acquainted with his method and ſucceſs, it is preſumed that men of liberal ſentiments will think themſelves indebted to him.

I return now to ſome further remarks on internal remedies, and ſhall confine myſelf to thoſe in more general uſe, and ſtill in great reputation with the beſt practitioners in ſurgery.

The

The firſt I ſhall mention is Mercury.—This may indeed be uſed with great advantage in many caſes *, as a moſt powerful deobſtruent and ſtimulant. But when exhibited freely, ſo as to raiſe a ſalivation †, the caſe is entirely changed; it may indeed from the vaſt diſcharge it occaſions, from the various ſecretions, in a few inſtances carry off ſomething that has been injurious to the habit, and may eſpecially keep it from the wound, and from counteracting the ſurgeon's deſigns; but I am ſatisfied, it uſually acts far more powerfully by reducing the vis vitæ for the preſent, and thereby coincides with the intentions of reſt, diet, and purgatives, as will be further ſhewn in the ſequel of this work. And every candid practitioner will allow, that of all the caſes of ſore legs, that return ſo frequently to the hoſpitals, the greateſt number is from thoſe who were cured under a courſe of mercury: nor is it even probable, that ſtrong and laborious men, whoſe ſores have been healed by the means of ſo debilitating a plan, ſhould continue long in that ſtate, when they return to their uſual diet and exerciſe.

Calomel taken inwardly, and in ſmall doſes as an alterative, though it leſs powerfully promotes the ſecretions, acts nevertheleſs upon the ſame plan, and being indeed uſually joined with purgatives, cannot fail to effect juſt as much as other medicines of this claſs. It may have one advantage of them, however, by acting

* See Falck on Mercury.

† See Sharp's Surgery.

as a ſtimulus to the habit, though in this view, the corroſive ſublimate is a preferable medicine, not being ſo likely to purge, and is often of great ſervice in the cure of theſe ulcers, which ſo often happen to men whoſe habits have been tainted with lues venerea.

Peruvian Bark is directed in the cure of ulcers on the legs, as it is alſo of many other ſores, and is doubtleſs a very valuable drug. In the caſes before us, and perhaps in all others, it acts as a tonic, and as ſuch, often produces wonderful effects; neither phyſician nor ſurgeon would willingly practice without it: but in the preſent inſtance, it may be objected to, in many caſes, as a medicine to be very long continued, at leaſt, with the view in which it is ſometimes preſcribed. It is uſeful only where nature is languid, and her powers ſtand in need of aſſiſtance to bring an ulcer into a good ſtate; it may then, in general, be ſoon diſcontinued, as ſhould every other means uſed under the idea of expediting a cure. It may be doubted, indeed, if it ever acts as an aſtringent in this way, but if it does, it will be often injurious; for it is a general rule, with very few exceptions, that ulcers on the legs ſhould be ſuffered to diſcharge as much, and as long as they are diſpoſed to do, which diſcharge ſhould leſſen only in proportion as they diminiſh in ſize: but of this, more will be ſaid in its proper place, whilſt I add a few words on other internal remedies in pretty general uſe.

After what has been ſaid, little need to be obſerved on the article of Purging, unleſs it be to make an apology for ſo egregious a deviation from the general, and

moſt

moſt antient practice‖; and this I am ready to do both on the preſent, and every other occaſion, when I ſhall be found differing from gentlemen, who have made ſurgery their ſtudy and practice much longer, and to more advantage than I have pretended to.—But, amicus Plato, amicus Socrates, ſed magis amica veritas.—To yield to any authority, would here be criminal. Facts muſt, and will ſtand.—I have ſeen the practice of the moſt eminent of the profeſſion both here and in Paris, and have profited from it; but in this inſtance, at leaſt, general preſcription has failed; and every man knows how tedious is the cure, and how frequent the relapſe of ſore legs. Nature is compelled to dry up the ſurface of the ulcer, by the improper help of epulotics, reſt, abſtinence and phyſic, rather than encouraged to throw off by the ſore, whatever is offenſive, to fill up the ſurface with ſound fleſh, and gradually to abate the diſcharge, only in proportion as that ſurface diminiſhes.—This is the work of nature.—Νεσων φύσις ἰάτρος§—art ſhould do no more than aſſiſt her endeavours, or remove the obſtacles in her way.—But this is to anticipate the ſubſtance of the following ſheets; ſuffice it to ſay here, that whatever virtue the exhibition of purges may be judged to have in healing of ulcers, the frequent uſe of them certainly does not diſpoſe them to remain ſo; nay on the other

‖ See HIPPOC. lib. de humor. TURNER, SHARP, and HEISTER on ulcers on the legs, the laſt of whom more particularly adviſes frequent purges to carry off the foul humors; forgetting that a continued recourſe to them, will carry off the good as well as the bad.

§ HIPPOC. EPIDEM. lib. 6. § 5.

hand, I venture to aſſert, that the long continued uſe of them is needleſs, and even prejudicial, in the cure itſelf, as is every other means of lowering the ſtrength, and for the preſent impairing the general health of the patient.

Another means in great repute, both with former and modern practitioners, is the uſe of alterative medicines. —What virtue ſome drugs may be poſſeſſed of, it doth not perhaps become a ſurgeon to thruſt in an officious opinion, but this I may venture to ſay, that ſome medicines have obtained very fine names, which it is well if they deſerve. That there are ſuch, as with very little or no ſenſible operation, may aſſiſt the vis medicatrix naturæ to make a ſalutary change in the ſyſtem, will be diſputed by no man of practice either in medicine or ſurgery; though there are certainly very few, that act ſpecifically on any diſeaſe, or induce any ſuch change in the blood, as that term is deſigned to imply. There are caſes and conſtitutions, it is granted, that require medicines to aſſiſt the healing of wounds, but in ſpecific contagions excepted, we have little reaſon to think, that there are any deſerve the name of alteratives, in ſuch a ſenſe, as to point them out as adapted to the ulcers now under conſideration, or that do any thing more towards the cure of them, than of any other wound. It will be ſufficient therefore, the general health be attended to, and ſuch medicines occaſionally directed, as are likely to promote it—if it be otherwiſe, I have been hitherto fortunate in not having found the neceſſity of them, and the patient ſeldom cares how few he is troubled with.

The reader's attention is drawn next to the diet to which ſuch

ſuch patients ought to be confined; and here I muſt again expreſs my diſſent from the general opinion, which I would not do, without being thoroughly ſatisfied of the ſufficiency of the grounds upon which I advance ſo very an uncommon one. But it is apprehended to be a matter of very conſiderable importance.—The diet ought not to be ſlender, unuſually low, or limited, as is too frequently recommended *, but juſt that which the perſon ought to uſe in a good ſtate of health; lower than too many like to indulge in, and rather better than ſome people allow themſelves; paying due attention to cuſtom and habit, which, it is well known, are to a proverb become a ſecond nature. The advantage of ſuch a diet will be ſhewn in another place, at preſent I ſhall confine myſelf to what is judged to be improper, and ſhall therefore briefly point out the diſadvantages of an error in this reſpect. A low, and very limited diet, by its effects in weakning the conſtitution, together with reſt and purging, tends to keep up that indiſpoſition to heal, conſtantly obſerved in theſe ſores; and thus conſpires with the weaker circulation in the parts, to prevent the formation of good and laudable pus, ſo neceſſary to the cleanſing and filling up of every old ulcer. Beſides, cures effected under ſuch a regimen, are very unlikely to ſtand, and accordingly very rarely continue for any length of time. In many

* Modicus cibus et aqua omnibus ulceribus conducunt. HIPPOC. de Ulceribus.

See HEISTER, TURNER, and more modern writers on this ſubject.

patients, and eſpecially the heedleſs, and often abandoned amongſt the poor, who ſoon return to their old and very different ſtyle of living, the yet tender cicatrix is unable to withſtand this new impetus of the fluids, the conſequence of which muſt be plain and obvious, without adverting to other conſiderations. Indeed too applicable to this and other circumſtances of diſcipline, in the management of ſore legs, is that univerſal maxim, omnis ſubita immutatio periculoſa; for indeed nature is abhorrent of it*.—In ſhort, if the cure of very bad ulcers on the lower extremities is deſigned to be laſting, there muſt be a greater conformity in the non-naturals, as they are called, both under, and after the cure, than ſeems to have been agreeable to the ſentiment, or practice of the generality of ſurgeons in any age.

The ſuppoſed importance and neceſſity of reſt, and an horizontal poſition of the affected limb, has long been a ſine qua non in the cure of large and old ulcers on the legs, both amongſt the ancients and moderns†, and though

* Neque ex multa fame nimia ſatietas; neque ex nimia ſatietate fames idonea eſt.—Item, neque ex nimio labore ſubitum ocium, neque ex nimio ocio ſubitus labor, ſine gravi noxa eſt.

CELSUS, lib. i. cap. 3.

† Stare autem ulceri minime conducit, præſertim ſi quis in crure ulcus habeat; imo neque ſedere, neque ambulare. Verum otium et quies maxime conferunt. HIPPOC. de Ulceribus.

See alſo Traitè des Tumeurs et des Ulceres. Paris, 1759.

" I injoin

though it may ſeem bold, yet it is the leading deſign of this publication to attempt to ſet it aſide, at leaſt to propoſe a method of cure without it, better, more rational, and laſting. And here it will doubtleſs be ſuppoſed, that every idea of neceſſity, or peculiar indication is excluded, ſuch as fever, local inflammation, &c. which certainly demand a temporary confinement; and that the objection is limited to the ſimple idea of reſt of the part, in order to facilitate or perfect the cure. Whereas, the frequency, I had almoſt ſaid conſtancy, with which large and old ulcers on the legs are found to return, is greatly owing to their having been healed in an horizontal poſition of the limb.

Having now conſidered many, and perhaps the chief of the internal means in general uſe, together with the poſition of the affected part, and the diet of patient, I ſhall proceed to make ſome obſervations on topical applications, the more immediate province of ſurgery.

And the firſt thing that demands a particular notice, is the long continued uſe of fomentations and poultices, which however they invigorate and warm at the inſtant, tend greatly to relax the open mouths of the fine veſſels, to deſtroy the tone of the muſcular fibres, and induce a

---

"I injoin reſt, with a due poſition of the limb, if not in bed or upon a couch, lying along at leaſt upon ſome chair or ſtool, near a level with the trunk of the body." TURNER.

"Above all things reſt, and an horizontal poſition; which laſt circumſtance is of ſo great importance to the cure of ulcers on the legs, that unleſs the patient will conform to it ſtrictly, the ſkill of the ſurgeon will often avail nothing." SHARP. Introduction, p. 38.

flabbineſs of the ſkin over the whole limb*; thus laying an additional foundation for ulcers healed in this way, to break out again. The uſe of them likewiſe generally obliges the patient not only to reſt, but to keep in his bed†, that the limb may be preſerved conſtantly warm; for where this is not attended to, little good can reaſonably be expected, ſince a common poultice, ſoon becoming cold, is likely in many caſes, to produce more harm than advantage. What has been ſaid, it ſhould be obſerved, relates to their long continued uſe; an occaſional recourſe to them, eſpecially in the commencement of the cure, and in ſome inſtances hereafter to be ſpecified, may be ſometimes, though not very frequently neceſſary.

Without examining particularly the great variety of dreſſings that have been in common uſe, it will be ſufficient in this place to ſay, that mere greaſy applications without ſome warm and ſtimulating addition, however proper and uſeful in ſimple ulcers on other parts of the body, are liable to the ſame objections, and therefore not adapted to thoſe on the legs. For though, like the former, they may ſometimes, with the aſſiſtance of reſt and epuloties, bring the ſkin over the ſurface, yet they very often leave the diſeaſe at the bottom.

After having thus ſtated ſome principal objections againſt the ordinary practice, I am happy that experience warrants me in propoſing a plan of cure more certain and agreeable, as well as more durable than

---

* See Bell, part 2. §. 2. † Id.

any

any hitherto deſcribed. Indeed the ſucceſs has been abundantly greater than was at firſt expected, and its ſimplicity cannot fail of recommending it in preference to any other, if it were poſſeſſed of only equal advantages. But to ſave the trouble and pain of confinement and ſtrict regimen, almoſt without the uſe of internal remedies, which in general are not very much reliſhed by patients of any claſs, is ſurely an object highly worth attending to; ſo that very little need be added, if the rationality and ſafety of the method, can be made equally clear with its certainty and eaſe.

In the treatment of ulcers, two things are principally aimed at, whatever are the means by which we deſign their accompliſhment; firſt, to bring the ſore into a good condition with reſpect to its appearance, its diſcharge, and the ſenſations of the patient; and then ſecondly, to induce its ſurface to dry up, or form a cicatrix. In order to theſe, in the cure of every deep ulcer, it is neceſſary that its bottom ſhould throw up healthy granulations, and come up near, or quite to the level of the ſurrounding ſkin, unleſs the ulcer has been attended with great loſs of ſubſtance, or caries of the bone; but ſuch incarnation is here included in the firſt idea, as it uſually takes place at the time, or very ſoon after the ſore puts on a healthy appearance. To theſe intentions a third may be added, which enters peculiarly into this plan, which is to heal them by ſuch means as ſhall be moſt likely to prevent a return of the complaint.

To accompliſh theſe intentions, there is one grand leading idea equally conducive to each; this I ſhall

therefore ſpeak of without a preciſe reference to the indications laid down, or taking up the reader's time by an uſeleſs affectation of ſyſtem and mode, which has been of late ſo juſtly exploded.

An ulcer is here ſuppoſed to be unattended with much topical inflammation, or uncommon pain, and without any febrile diatheſis in the habit. Here the principal intention is to procure, and keep up a copious diſcharge, without any apprehenſion, in general, about the time it may continue, or the effects it may produce; the former will not be much longer than the ulcer is in a foul ſtate, the latter, (it will be ſhewn) is the very object in purſuit; ſince the diſcharge will cleanſe the foul ſurface, liberate the veſſels in the part, and occaſion a good appearance of the ſore, much ſooner than any thing elſe, and can therefore produce no manner of bad conſequence*. On the other hand, where there has been great, and long continued pain,

* "I ſhould be unjuſt if I did not remark, that when theſe terrible ſcorbutic ulcers are cured by this method (a ſuppurative poultice) you may perceive during the cure, the patients countenances, which were generally of a ſquallid hue before, to be clearing up daily by the diſcharge from the ſore, till they come to a perfectly healthy appearance. And this being done without any internal medicines, I lay it down for a maxim in all caſes, that it is better for the patient to diſcharge any peccant matter externally from the part, which nature laid it on, than to retract it into the blood, by bleeding, purges, or other evacuations; for by this means, the matter is often tranſlated to the lungs, or other noble part: for it is a well known maxim, that ab extra intus redire, malum eſt." FREKE's Art of Healing.

and

and ſome conſequent inflammation, the copious diſcharge produced by the means about to be preſcribed, uſually removes theſe troubleſome ſymptoms †. And though the pain ſhould be increaſed for two or three days, it will not be ſo conſtant as before, and after that period rarely returns, unleſs it be neceſſary to have recourſe to ſome ſeverer applications; which though they may create a painful hour now and then, will amply repay the patient at laſt. Should it be urged that fomentations and poultices are proper means to remove inflammation ‡ and pain, I muſt beg leave to remind the objector, how many caſes he has ſeen, where the pain from ſmall ulcers has reſiſted theſe applications for a long time together; whereas, I find ſimilar caſes yield in a few days to the treatment here recommended.

The diſcharge then is chiefly promoted by two things, the uſe of very powerful digeſtives or ſuppuratives, and the ſame degree of moderate labor and exerciſe to which the patient has been previouſly accuſtomed; to obviate

† What HIPPOCRATES obſerves on recent wounds, experience proves to be fully applicable to ulcers on the leg.—At vero recentia ulcera omnia, tum ipſa, tum circumfitæ partes minimè inflammationem incurrunt, ſi quis quam vitiſſimè ſuppuret, et pus ab oſculo ulceris non interceptum ſupprimatur." De Ulceribus.

See alſo WISEMAN's Surgery, book 2. ch. 4. obſervat. 1.

‡ By inflammation is here intended, not ſo much the true phlegmonous kind, as a ſpecies of eryſipelatous inflammation, often the conſequence of great pain, and thin acrid diſcharge, which ſome ulcers on the tendinous parts of the leg frequently furniſh.

the

the inconveniencies of which, a very tight bandage is to be uſed. Indeed the advantage of the bandage hereafter to be deſcribed, cannot eaſily be credited by thoſe who have not been acquainted with it, or by not expecting enough from it, have not had recourſe to it on every proper occaſion *.

What regards the treatment of ulcers may be ranked under four general heads, external applications, bandage, exerciſe, diet and medicines. Of the firſt it will be difficult to make any exact, or regular arrangement; but it may be ſaid in general, that they conſiſt of digeſtives, detergents, eſcharotics, and a certain kind of aſtringents.

The digeſtive in moſt caſes cannot be too ſtrong, if not productive of that kind of irritation, which may provoke inflammation in the neighbouring parts; nor is that much to be apprehended, for it is remarkable, that very irritating applications to theſe ulcers ſcarce ever induce it; eſpecially, (however incredible it may appear) where exerciſe is freely allowed; which by its tendency to promote the diſcharge, ſo far counteracts inflammation. And I cannot help adding, that ſurgeons may probably at firſt be ſurprized, how very powerful ſuch applications may be, and how long they may be continued, without occaſioning much pain after the firſt two or three days.

---

* See Thoughts on Amputation, by Dr. Kirkland.

The

The preciſe form of any ſuch digeſtives, it would be thought trifling to inſiſt upon; the Pharmacopœiæ of London and Edinburgh contain them; ſome one of the more active among theſe, will in a very few days produce a fine ſurface on an old, and very painful ſore, and with the aſſiſtance of exerciſe, a good diet, and proper roller, will in a variety of caſes, and without any other means, effect a ſpeedy and laſting cure; though the patient ſhould have been ſubject to ſore legs for a number of years, and never eaſy a month together, after having been repeatedly healed in the ordinary way.

But before I proceed to particular caſes, it will be found proper to ſtate ſome of the advantages of this plan, and to obviate the objections that may ariſe in the minds even of eminent practitioners, againſt ſo free uſe of the remedies propoſed, eſpecially as ſo much is expected from them, as to occaſion the diſcarding ſo many other means which cuſtom has ſtamped with an almoſt ſacred authority.

I can foreſee no formal objection to be made againſt what has been called very powerful digeſtive, and ſuppurative ointments. Such made of the warmer gums, balſams and oils, are in conſtant uſe among ſurgeons; And if I have intimated, as I mean to do, that they cannot be too powerful (if calculated to promote digeſtion) and ought to be longer continued than is commonly done, it is on account of the more inert ſtate, and weaker circulation obſerved in theſe parts, and their diſpoſition to break out again into a ſore, if too precipitately healed. It is to prevent this, that

the

the diſcharge is directed to be kept up as long as nature is diſpoſed to it, inſtead of having early recourſe to drying, or healing applications, as they are called, in order to haſten the cure; and for which, in the greateſt number of caſes, there will be found little occaſion on this plan.

But to paſs on to things more liable to objection, ſuch as ſtimulating, and corroſive applications. Here I wiſh firſt of all to obviate in part the force of a principal objection, that they occaſion pain (which however, as hath already been ſaid, they often remove *,) by obſerving further that ſuch applications are to be uſed only now and then; and I can aſſert, that although they are to be applied in conſiderable quantity, they will not excite half ſo much pain as might be apprehended; as they are uſed chiefly to ſores in a certain ſtate, which will very well endure them, and are rendered very tolerable at the worſt, by means of that exerciſe ſo continually inculcated. I am conſtantly told by patients to whom they have been the moſt freely uſed, that walking always mitigates the pain, which accordingly is ſevereſt in bed, at whatever time of the day they have been applied. Nor ought I to omit aſſerting, that filling a ſore with mercur. corroſ. ruber, affords very little more pain, than moderately ſprinkling it on the part; beſides which, we are to conſider, that one dreſ-

* See Wiseman on Ulcers with Pain. Chap. 4. obſerv. 2. book 2.

ſing

ſing in this manner frequently ſuperſedes the neceſſity of many repetitions of it, in a more moderate way.

Another objection may ariſe from the ſtimulus, ſuch applications will occaſion, endangering inflammation, and rendering an ill-conditioned ſore ſtill more obſtinate, by producing a ſharp and ichorous diſcharge more abundantly corroſive. This is certainly true in a few caſes, of which I ſhall ſpeak in their proper place, but in a general way facts prove directly the contrary; ſores on the legs require a ſtimulus *, and it has been ſaid, are not eaſily provoked to inflammation. I have applied the red precipitate to ſores exquiſitely tender and painful, diſcharging nothing but a thin ichor, which has covered the ſurrounding ſkin with heated pimples, and ſmall ulcers, and that after trying lenient applications to no purpoſe; the precipitate has immediately changed the appearance and diſcharge of the ſores, the ſurrounding ſkin has loſt its unpleaſant aſpect, the pain has been removed, and the ulcer, when ſmall, been nearly filled up in a few days.

Beſides objections taken from the pain, and other effects of ſuch evident ſtimuli; it may be further remarked againſt the quantity and manner, in which ſuch applications are uſed, as well as the intention itſelf, that large ſurfaces, being thus repeatedly and rudely de-

---

* WISEMAN obſerves, that "applications to theſe ulcers ought to have a temperate heat; and whatever objections" (ſays he) "may be made againſt even cauſtic applications, where milder ones take no place, we proceed to the ſtronger."

ſtroyed,

ſtroyed, and even deep ſloughs, produced in ſome of them, is a very inelegant mode of dreſſing an ulcer, and has more appearance of the farrier, than the ſurgeon. I ſhall not on this occaſion ſtay to compare it with the actual cautery, very frequently in the hands of the former, and not altogether laid aſide by the latter, but reſting ſatisfied with the evident advantages ariſing from ſuch an uſe of them, muſt urge the neceſſity of obtaining, in many caſes, a new ſurface; without which, though the ulcer may ſometimes heal up, under ſtrict regimen and reſt, it will moſt probably break out again, when the patient returns to his uſual diet and exerciſe.

Beſide the arguments that have been offered in defence of ſuch applications, as create a more than ordinary irritation, or ſeem diſpoſed to increaſe pain in the ulcer, there are not wanting obvious facts to ſupport them; it being univerſally acknowledged there are many caſes, even where a kind of inflammation attends, in which they prove more ſpeedily uſeful than any other applications. I might particularly inſtance the ſmall ulcers on the gums, and inſide of the mouth, ſaid to ariſe from an affection of the ſtomach, which are generally cured in few days, by a little borax, burnt-alum, or a lotion of diluted ſpirit of ſea-ſalt. Whereas, holding warm milk, or any other lenitive, for a much longer time in the mouth, and frequently repeated, though ſoft and pleaſant to their tender ſurface, offended even with the ſtroke of the tongue, would have little or no

tendency

tendency to heal them. So alſo the true ſcurvy on theſe parts, will bear, by degrees, the undiluted ſpirit of ſalt *, and is cured by it, when bland applications would increaſe the complaint. It is alſo well known, that ſome ſmall ulcers upon other parts of the body, (and even affections of the eye-lids) which are apt to furniſh an almoſt cauſtic diſcharge, and are therefore intolerably painful, and difficult to cure when treated with lenient applications, are frequently dried up in a very ſhort time, by a few ſlight touches of the lunar cauſtic; which by deſtroying ſome little inflamed gland, removes the ſource of the evil at once. Such are very frequently met with on the inſide of the lips, which when rubbed with the cauſtic, ceaſe to be painful, and are healed before the little eſchar is thrown off.

In regard to the bracing, or aſtringent applications I mentioned, the propriety of them will appear beſt in their proper place. It will only be neceſſary at preſent to remark, that theſe aſtringents are different from thoſe in common uſe, both becauſe they do not leave a dryneſs on the ſkin, and becauſe they are of a very deterſive nature; neither are they made of ſuch a ſtrength as to ſuppreſs the diſcharge, but rather to brace the ſurface of ſome particular ulcers: beſides, the uſe of them is not conſtant, and is ſeldom long continued.

I come next to the ſubject of bandage.—It may be an empirical, but is no bad argument, when the in-

---

* See VAN SWIETEN's Comment. on BOERHAV. and LIND on the Scurvy.

tegrity

tegrity and common ſenſe of the ſpeaker is not ſuſpected, to ſay, that facts are ſtronger than reaſoning; they are ſtubborn things even to a proverb, and they ſpeak in favour of every tight bandage. I have applied it to the corpulent, heavy and inactive, to the young of an inflammatory habit, to the aged, to the pale and leucophlegmatic, nor have ever repented the uſe of it when accompanied with exerciſe; which every one will ſee, has ſome tendency to counteract its poſſible ill-effects on the extremities. It is true, we have known tight rolling and the laced-ſtocking prove hurtful to ſome people, when applied to large, hard ſwellings of the leg with varicoſe veins, and have been repeatedly followed by ſuch complaints of the ſtomach, as have made it neceſſary to lay them aſide, though the limb has been greatly benefited by their uſe. But this diſadvantage does not always take place even in theſe caſes, and the objection is greatly, if not totally removed, as I have had the cleareſt proofs, when there is a ſore on the leg; the diſcharge from which, cannot but tend to obviate all the apprehended ill-conſequences *. And whilſt

* See Wiseman's Surgery, Book 2. Chap. 4. Obſerv. 1.

Although for very obvious reaſons †, I have been unwilling to adduce any caſes of my own, in ſupport of my opinion, yet I am inclined to think, the following is ſo fully in point, in regard to the difference made by the preſence of a ſore, where tight bandage is uſed in diſeaſed and hardened limbs, as well as reſpecting the ſafety of healing up ſome ulcers in very ſuſpicious habits of body, that I have

† Aut famam ſequere, aut ſibi convenientia finge.
Scriptor.— Horace, de Arte Poetica.

whilſt that is, on this plan, encouraged by digeſtives and exerciſe, it will abate only in proportion as the ulcer diminiſhes in ſize; which, as will be ſhewn preſently, is permitted, rather than compelled to dry up.

Beſides

---

have been prevailed upon, in this inſtance, to wave my prejudices againſt introducing caſes on diſputable points. To avoid breaking in upon the ſubject, however, I have thrown it into a note, that the reader may paſs it over if he pleaſes.—A young woman, whoſe mother had been afflicted with a painful tumor and hardneſs of the leg, a ſchirrus in the breaſt, and afterwards died of a cancer in her mouth; had herſelf a ſimilar complaint of the leg from the age of eight years. On the firſt appearance of the menſes, this became more painful and enlarged, and ſoon after, confined her for ſome time to her bed; it was then fomented and poulticed, and ſhe was let blood and purged, which took off the inflammation, but the hardneſs and tumor remained as before. A linen roller, and afterwards a laced-ſtocking were applied, which kept it eaſy for three or four weeks, but her ſtomach being affected, ſhe was obliged to lay them aſide. In a ſhort time, the leg became painful again, but did not inflame for ſome years, when ſhe was again confined, and treated as before, but never got rid of the hardneſs and ſwelling, nor was ever long together perfectly free from the pain.—She was always eaſieſt after the flow of the menſes, and in moſt pain about the return of that period.

At the age of two and twenty ſhe married, and ſoon becoming pregnant, her ſtomach was much indiſpoſed, and ſhe ſuffered in that way for ſeveral weeks. During this time, her leg became abundantly better, the hardneſs and tumor abated, and ſhe could bear to preſs, and beat it with her hand, in a way ſhe had never before dared to attempt. About the end of the fourth month of geſtation, her ſtomach complaints conſiderably abated, and her leg became inſtantly painful; and in two days was very hard and enlarged, was conſiderably inflamed, and had a little oozing from under the ſkin.

Beſides theſe things the kind of roller is to be conſidered, which ought to be made of the thinneſt Welch-flannel, not thicker than coarſe linen, with advantages no linen can have; it not only being ſofter, ſitting eaſier,

---

At this time I was conſulted, and was informed that her ſituation in life would not allow her to reſt, or keep the leg long together in an horizontal poſition.

Taking in the whole of her caſe, I was very unwilling it ſhould come to a ſore, but (as ſhe could not keep the part ſupported) I was fearful I could not prevent it, which I was very deſirous of doing on account of her bad habit of body; or ſhould otherwiſe have had no fears about treating it like other inflamed ulcers on the leg, whenever the ſkin ſhould compleatly give way. I therefore did what I could to prevent the further cracking of the ſkin; but without abſolute reſt, this was ſcarcely to be expected, nor is it probable, even that could have prevented it. It accordingly gradually became ſore, and was painful to the higheſt degree, ſo that ſhe often ſat ſcreaming out aloud for hours together, unable to put her foot to the ground, tho' the ſore was dreſſed only with ceratum alb. or a ſaturnine cerate, and ſometimes with different poultices; and ſhe kept the limb as quiet as her ſituation would allow of.

Not knowing what to do better, I determined to try my own method, being ſatisfied that tumid legs will often bear rolling when affected with ulcers, that would never endure it before. I dreſſed it with a powerful digeſtive, and rolled it up moderately tight, though it was ſwelled to a greater ſize than any leg I ever ſaw; notwithſtanding it had, for ſome time, been reſted great part of the day on a chair—It had broken into a ſmall, foul ſore, of an irregular ſhape, without the leaſt appearance of red fleſh, and the ſkin was diſcoloured half round the leg, which was exceedingly varicoſe; it diſcharged a ſcalding ichor, that deſtroyed the ſkin wherever it ran, increaſing the the ſize of the ſore, and was daily more painful.

Having

eaſier, and making no plaits on the ſkin, but is elaſtic to a very conſiderable degree. This is greatly increaſed by its being torn acroſs, and ſewed together ſelvage-wiſe, (the hard ſelvage thread being firſt cut off) whereby

---

Having dreſſed it as above mentioned, ſhe was now permitted and encouraged to walk, and became eaſier from the hour the roller was applied, which continued to agree perfectly well. The leg remained eaſier thoughout the cure, except for ſome time after it was dreſſed, when ſharper applications had been uſed, but continued to ſpread till the ulcer became clean, and a copious diſcharge was produced, which did not exceed ſeven or eight days at the moſt. After this, it became eaſy, diſcharged laudable pus, and in about a fortnight's time, it began to heal very kindly, and continued to do ſo till it was perfectly well.

Like many other ulcers, when the patient is permitted to walk, it was always moſt painful in the night, for which reaſon, ſhe was obliged to take occaſionally half a grain or a grain of extractum thebaicum at going to reſt; which was ſufficient to quiet the pain, and ſeemed to produce a very good effect on the ſore. At the time this was the moſt painful, ſhe was not only permitted, but compelled to walk out, and always came home eaſier, though ſhe often walked further than ſhe had been able to do at a time for a number of years; yet the leg never ſwelled, but evidently grew ſofter by the exerciſe. In this caſe, as well as in a variety of others, I may afterwards ſpecify, the application of precipitate, though it ſome times gave great pain for an hour or two, proved an occaſion of ſpeedier eaſe on the whole, as it deſtroyed the foul ſurface, produced a laudable diſcharge, and brought the ſore into a deſirable ſtate much ſooner than it could otherwiſe have been; when this application was firſt made uſe of, the ulcer diſcharged a cauſtic ſanies, that corroded wherever it ran, and the ſurface was ſo ſenſible, that the patient could not endure the ſlighteſt touch of an armed probe, to wipe off the matter. It was

by the roller is made to yield to every motion, and varying ſhape of the limb, and admits of, and aſſiſts the patient ſo much in walking, that I have known perſons with ſuch painful ſores as prevented their ſtanding upright, find immediate relief in this reſpect, and be able to walk with comfort, from the firſt hour they were put on. To this fact numbers can teſtify, and it is from experience I can ſay, it will be found no ſmall improvement in rollers for the legs, that flannel is ſubſtituted for linen, and that they are made up in the manner here recommended. I ſhould neither ſpeak with ſuch confidence, nor enlarge as I have done about trifles, having ſeen enough to prevent my depending on a few fortunate caſes, or venturing to publiſh my thoughts to the world, as containing any improvement, if not ſufficiently ſupported by facts, or if there was any room left to doubt, upon what ſuch favourable events had turned.—Perhaps theſe, and other advan-

---

only a few weeks in getting well, the hardneſs and tumor of the limb ſubſiding as ſoon as a copious ſuppuration took place; and before the ulcer was healed, the leg was, I believe, quite as ſmall as the other, and has continued ſo ever ſince, though there was no remarkable return of the ſickneſs, and ſhe has now lain-in above a twelve month. Neither did geſtation afford any impediment to the cure, nor have I in all the caſes I have met with, ever taken notice of ſuch an effect, though ſome gentlemen of character have, and much has been obſerved by authors on this head.—"Impregnantibus ulcerum curatio difficilis, propter retentionem ſuperfluitatum earum, propterea quod ipſarum menſtrua retinentur."

Avicenna, de Ulceribus, lib. 4.

tages

tages * of this bandage, may be explained on the following principles.

I. The moving ſoft parts are not only kept warm, but receive very conſiderable and conſtant ſupport, and their action is rendered more general and regular: we may even ſuppoſe that ſome part of the effects of action, is transferred upon the bandage, or its operation ſo modulated, that it is not wholly exerted on the ſkin.

II. The blood and lymph are determined to a more equable circulation.

III. The growth of fungus is conſiderably reſtrained, and callous edges are prevented, or removed.

IV. The ſurrounding ſkin is brought forward on the ſore, and the ſeveral parts are brought into contact; and conſequently, a lodgment of matter is leſs likely to take place.

V. Compreſſion warms, ſuſtains, ſtrengthens; and by repelling from the adjacent tumid parts, derives greater powers of healing in the conſtitution to the ſeat of the ulcer.

VI. The compreſſion diſpoſes the ſore to heal more ſmoothly; and theſe advantages which are very conſiderable, are increaſed, as hinted before, by the free uſe of the limb.

---

* The manifeſt advantage of the late improvement (if I may be allowed the expreſſion) in great operations, ariſing from immediately bringing divided parts into contact, if duly conſidered, will afford another proof of the uſe that may be made of bandages in the cure of wounds and ulcers. See ALLANSON on Amputations.

I have ſaid ſo much on this head, becauſe this, as a general practice, is ſo much out of faſhion, though once in great eſteem with eminent ſurgeons, and particularly Wiſeman, whoſe contrivance the laced-ſtocking ſeems to have been. The antients indeed made uſe of rollers much oftener than we do, and apparently to conſiderable advantage, but they ſpeak of them only as retentive bandages, or for bringing divided parts into contact, and to aſſiſt the more ſpeedy cloſing up of deep ulcers after a proper digeſtion; or ſometimes indeed as expulſive, to prevent fluxion to a part, but their bandages were ill calculated to anſwer the end, and were never applied ſo tight as Wiſeman recommended, nor with particular reference to the legs. Wiſeman himſelf, however, does not appear to have underſtood all the advantages he received from the uſe of his laced-ſtocking, as he ſeems apprehenſive that the cure of ulcers on the legs obtained by this means, were leſs likely to ſtand, than thoſe effected without it. He appears therefore frequently to have recommended the ſtocking and rollers on the ſame principle with reſt, and an horizontal poſition of the limb, to prevent what is termed a deſcent of humors to the ſore, and the ædematous ſwelling that often accompanies theſe ulcers. But his reaſoning was certainly not ſo good as his practice, and had his bandage effected nothing beyond his intentions, his ſucceſs had been much leſs than it was. The roller has many other uſes beſides counteracting the diſpoſition to ædema, (to which the lower extremities are peculiarly liable), and one that I cannot omit mentioning

tioning here, arising from the manner in which the filling up of every deep ulcer is effected. To this end, there is not only a trifling elongation of the capillary veſſels in the wound, but the parts contiguous to the ulcer, are found to waſte, or diminiſh, conſiderably; inſomuch that Meſſrs. *Fabre** and *Louis*, eminent ſurgeons in Paris, attribute the whole of this Proceſs to what they call an affaiſement, or a waſting away of the extremities of theſe capillary veſſels. This indeed, is by no means the whole of the caſe†, though it is principally hereby, that the cicatrix in deep ulcers approaches the level of the ſurrounding parts, when ſuch wounds are perfectly healed; and this (as hath been mentioned already) ought to be the caſe in newly healed ulcers; and indeed when it is not, the cure in general is not very likely to ſtand.

As this is a circumſtance evident to every attentive practitioner, I cannot help obſerving it is matter of ſome ſurprize, that rollers are not more frequently uſed than they are, and a greater compreſſion made by them, not only for ſores on the leg, but alſo on many other parts of the body; as it is probable they would not a little contribute to their cure.

---

* Memoires de l'Academie de Chirurgie, vol. 4.

† That there is a power of extenſion or developement in the veſſels of a wounded part, is evident from the vaſt fungus that will ſhoot up in ſome ill-conditioned ſores; and in various excreſcences, which are furniſhed both with blood veſſels and nerves.

There is only one inſtance, however, that I know of (common inciſed wounds excepted) in which this practice has been much attended to, which is that of the venereal buboe; though even in this, the practice has not been general. But Mr. *Bromfeild*, I know, has conſtantly had recourſe to it for that ill-conditioned ſore, which it is well known is frequently very troubleſome to heal, after the venereal virus has been deſtroyed. Such, however, after reſiſting a variety of dreſſings and alterative medicines, have been preſently healed upon the application of a very tight bandage; for which information, when I firſt began buſineſs, as well as many acts of kindneſs, I am indebted to that gentleman, to whom the public well knows its obligations in matters of greater importance.

Upon this head I am much indebted to the ingenious author of a Treatiſe on Ulcers beforementioned ‡, whoſe reaſoning long ago perfectly ſatisfied me, as to the ſafety and advantages of tight bandage, and determined me boldly to puſh the experiment, till I ſhould find reaſon to change my opinion; which this publication is proof enough I have not done. But the laced-ſtocking ſo much recommended by *Wiſeman*, falls far ſhort of this double intention, and is every way inferior to the flannel roller, which lies much ſmoother, tighter, and makes a much more even, pleaſant, and ſteady compreſſion, than can be made by any other

‡ Bell, part 2. § 2. See alſo Clare on Abſceſſes.

contrviance,

contrivance||. By this means, as it has been ſaid, the growing fleſh in a healing wound, is eaſily kept within bounds, and that troubleſome luxuriance is prevented, of which a more moderate degree is always required; and for the want of which, it will be ſhewn, ſores on the lower extremities do not heal ſo readily as on moſt other parts of the body.

As ſo much is expected from rolling, it will readily be preſumed, ſome care is required in doing it; and indeed the application of bandage, is no contemptible branch of our profeſſion, though I do not mean to hint, that ſo much judgment or memory is requiſite for rolling up a leg, as in the application of bandage to many other parts; yet great attention is neceſſary. The roller muſt preſs equally on every part, or ſome ſinus may unexpectedly be formed, but of this there is not the leaſt danger, if it be applied with care, and the proper directions obſerved, though it be drawn ever ſo tight;

|| WISEMAN indeed almoſt every where prefers the laced-ſtocking to the roller, giving for a reaſon that the roller makes a leſs uniform preſſure, and even bruiſes the parts: but however this may be with a linen bandage, no laced-ſtocking can be ſo ſmooth, firm, or ſo pleaſant as a flannel roller.—The great advantages of which are now ſo evident to me, that however neceſſary ſurgeons may think reſt to be in ſome very bad caſes, however attached to particular diet or dreſſings, or prejudiced againſt any part of this work; I would entirely upon principle importune them to add to all theſe, the conſtant uſe of a flannel roller, and can aſſure them of far greater ſucceſs than they have ever had, in every ulcer of the lower extremities.

neither

neither will it leave ſo much riſing on the ſkin as a linen one, which alſo will give conſiderable pain if the patient be permitted to walk. The warmth likewiſe which the flannel communicates to the limb, eſpecially in cold weather, has long appeared to me a matter of very conſiderable advantage §.

The manner of applying it, it has been ſaid, requires nothing but care: every one knows that tight bandage ſhould begin at ſome diſtance below, and be carried ſome way above the parts it is chiefly deſigned to compreſs; otherwiſe, the matter attempting to iſſue from the ulcer, being confined by the tight preſſure upon it, will force a paſſage wherever it finds a leſs reſiſtance; and thus convert a ſimple ulcer into a fiſtulous ſore.

But for ulcers on the legs, eſpecially where exerciſe is allowed, this rule ſhould be conſiderably extended, and the bandage, (which ought to be at leaſt three inches wide) ſhould begin as far below, and be carried as much above the affected part as the limb will allow of. To this end it ſhould commence at the extremity of the foot (the end of the roller firſt croſſing the inſtep) and after being brought two or three times over the ancle, ſhould aſcend ſpirally (the edge of one turn of the roller being not more than about an inch from another) till it riſes to the calf of the leg. Here the ſtricture ought to be leſs, to permit a free action of the muſcles, and the turns therefore be ſomewhat more diſtant; in which manner it muſt be continued up

§. See BELL on Ulcers. Part. 2. §. 2.

to the knee. Above this part it would be improper to carry it, though recommended by conſiderable authority †, and that for moſt obvious reaſons, where exerciſe is both permitted and injoined.

I have been thus particular on this head, from the great conſequence I know it to be of, and hope it will not on this account be imagined that I affect any particular art in the performance. Every ſurgeon well knows of how much conſequence it is, that rollers be properly adapted to the end for which they are deſigned, and how much trouble may ariſe from great compreſſion being made above or below the preciſe part, for which ſuch compreſſion was employed: all ſuch are capable of doing it well, if they will do it with care, which is the thing I mean to inculcate; as otherwiſe, the patient whoſe leg is rolled tight, will ſuffer great pain, and the ſurgeon be long diſappointed in the cure. However triffling theſe directions may appear, experience will prove them to be otherwiſe—A very moderate ſhare of knowledge of the firſt principles of ſcience, were ſufficient to guard me from inſiſting on trifles; upon which the art of healing will never depend. But as there are many young men always in London, who come profeſſedly to learn, and ſome of them with very little previous education in ſurgery, for ſuch at leaſt, more particular directions may not be wholly unneceſſary.

---

† Medical Obſerv. and Inq. vol. 4.

With

With regard to exercise, it may possibly be said, that this in a great variety of cases (even without the presence of fever, or topical inflammation) cannot fail to produce, or increase pain, especially where stimulating applications are used. And that in all cases, (though no pain or inflammation should follow,) it must have a natural tendency to retard the cure, if not entirely to hinder it, both by disturbing the tender granulations as they rise on the sore, and preventing that process of nature by which they dry on the surface, and produce a cicatrix.

Much of this reasoning may be true, and is so, as it respects many wounds on other parts of the body, but has not a like application to old sores on the legs; where a particular stimulus is required. The latter are never so expeditiously cured, as those on superior parts, in whatever way they are treated; but I am satisfied from a variety of facts, will in many instances heal sooner with exercise than without it. It is acknowleged, that after the operation for the hare-lip, and every other similar case, where parts are to be united by the first intention, they must not only be brought into contact, but be kept so for some time, in as quiet a state as is possible, or they will seldom unite firmly. But how different these cases are, I need not stay to point out, and have mentioned them only for the better clearing our way to the precise point on which the argument turns. For though the lips of such wounds will not grow together, whilst they are kept constantly in motion, yet both lips will be covered with skin in a very

few

few days, and in this ſenſe, a healing of the wound is produced; and it muſt be very great motion indeed to prevent it. Now this is the kind of healing in queſtion relative to ulcers on the legs, and if motion of the part affected is capable of preventing it, (where a proper bandage is conſtantly worn †) it muſt either be ſuch, and to a degree that would prevent, not the union, but the healing of the raw edges of the lip I have mentioned; and ſurely no common action of the lips will do this. Or ſecondly, it muſt be effected from the exerciſe ſo greatly increaſing the diſcharge, as to prevent that diſpoſition to dry up, which ought to take place in the extreme veſſels of the ſore, whereby it has been ſaid,

† It may not be uſeleſs in this place, to make a few general obſervations on muſcular action, with a view to point out ſome particular advantages of tight bandage, where exerciſe is uſed.—In muſcular action, there is always an accurtation of the moving fibre, and a general enlargement of the muſcle. This increaſe of bulk is not equal, but is greater about the belly, than at the extremities of the muſcle. Diſeaſe in a part may render this action liable to great irregularities. Faſcia, and annular ligaments, &c. prevent unequal contraction, and its manifeſt inconveniencies.—It is true, we don't find the muſcles acting in ſuch a way, as to preſs from within outwards, to a degree capable of forcing up the ſkin very conſiderably; but they can pull upwards and downwards, with ſufficient force to derange a healing wound.—Now bandage effectually prevents irregular action, and will keep the ſkin from moving conſiderably when the muſcles act; as well as diminiſh the ſwell of thoſe that lie immediately under it.—Theſe are preciſely the points aimed at; and that bandage will anſwer theſe intentions, is very evident both from reaſon and experience.

the

the cicatrix is formed. And if the quantity of diſcharge be the objection, in regard to ulcers on the legs, it proves all I contend for; it is deſirable if it be good, and the want of it is, during the greateſt part of the cure, the grand obſtacle in our way to the healing of the ſore ‡. For thoſe on the leg, and eſpecially the moſt painful ones, either diſcharge very little, or abound only in a thin and excoriating ichor; and neither of them can be changed for the better, but by ſuch means as ſhall reſtore the due tone of the veſſels of the part, deſtroy the looſe or callous fleſh on the ſurface, and thereby open a way for the ſecretion of laudable pus, the beſt dreſſing that can be applied to a ſore.

Now, exerciſe contributes to this, inaſmuch as it tends to promote a free and bold circulation of the blood, to open the ſmall veſſels, and reſtore a free paſſage in the ſyſtem of lymphathics, whereby it increaſes the ſtrength and vigor of the limb. On this account the diſcharge can never do harm, nor the exerciſe that promotes it keep the ſore improperly open; for if the habit in general has nothing particularly amiſs in it, and the circumſtances of the part are ſuch as have been deſcribed, the diſcharge will gradually abate as the ulcer diminiſhes, and its ſurface will always dry up in a rea-

---

‡ L'ulcere ſec, qui ne ſuppure pas, ne peut pas ſe deterger, or tout ulcere qui ne ſe deterge pas, ne peut pas ſe guèrir.

Traitè des Tumeurs et des Ulceres.

ſonable

ſonable time. Such exerciſe of the part is not, indeed, neceſſary to the healing of ſores on the upper extremities; but the difference in the lower ones, and particularly the inferior parts of them, is greater than has been generally imagined, or has, at leaſt, had any influence upon practice. Nature, therefore, ever attentive to the good of the whole, and provident for every defect, has wiſely ſupplied the natural deficiency ariſing from their diſtance from the heart, in the beſt way it was poſſible; beſides, therefore, that ſhare of labor they have in common with other parts, it has not only impoſed upon theſe (as was hinted before) the weight of the whole body, but has deſtined them to be the inſtruments of its conveyance from one place to another.

But on this alſo I have already delivered my thoughts, and may have ſtill further occaſion to inſiſt as I go on; ſuffice it to hint here, how greatly prejudicial it muſt be to general health for any perſon accuſtomed to labor and exerciſe, to be confined for a length of time in an inactive ſtate, and the greateſt part of it, in an almoſt horizontal poſition.—Can it then be neceſſary in the cure of ulcers on the legs, to deprive the part affected of thoſe very advantages which nature deſigned to preſerve it in vigor‖? Has it the moſt remote tendency to

‖ Uſus corroborat, otium autem colliquat. HIPPOC. Med. Officin.

This obſervation is univerſally allowed, and is remarkably evident in the vaſt influence that great exerciſe of the extremities is obſerved

to perfect the cure; I mean, to make such a cure as shall stand?—If not, certainly our art is materially deficient, or we are faulty in the use of it; for is not a perfect cure much more likely to be effected, under such exercise of the limb as shall afford the natural stimulus, if the evils attendant upon that exercise can be obviated?

It is granted, however, that exercise may in the case of some large sores, to a certain degree, retard the healing of the ulcer, for the same reason that very great motion of other parts would affect sores seated on them; but instead of being otherwise injurious (by occasioning fluxion of noxious humors to the part, and I know not what other evils said to be peculiar to the lower extremities,) it is really useful in every other respect if a proper bandage is applied, and is therefore advantageous upon the whole for every ulcer on the legs, as I hope hath been tolerably proved; and particularly, as it hath a direct tendency to prevent the sore breaking out again *: whilst the

---

ed to have in watermen and porters; the former of whom have usually large strong arms, and slender legs; and the latter thick muscular legs, almost without exception, if they are in health.

* How far the continuance of a roller, which I understand a very respectable hospital surgeon advises to his patients, may prevent a return of the complaint, I have no right to attempt to decide, since I have never injoined rest, in any instance, since I knew how to cure ulcers without; though indeed an hospital is not the propereſt place to determine the point, as the patients are often never heard of after their

the evils which are ſaid to follow the drying up of old ulcers, when ſuch do take place, are very often the conſequence of an injudicious method of cure.

Many, however, would be the diſadvantages of motion in ulcers on the legs, if they were covered only with a common poultice, or left merely to the dreſſings that are uſually applied to them; but upon the plan here recommended, they are conſtantly ſupported by a firm, ſoft, and yet elaſtic bandage or roller, which in very many caſes, as infallibly counteracts every poſſible inconvenience ariſing from motion, as the motion itſelf, thus ſupported, has a manifeſt advantage. And though ſome objections in turn might, with equal propriety, be made againſt the remedy itſelf, or the conſtant application of ſo tight a compreſſion as has been recommended, yet all ſuch objections, it has been remarked, are greatly obviated by the uſe of exerciſe *.

I am

---

their diſcharge: we know, however, how very common it is, for large or old ulcers, healed by means of reſt of the part, to break into much worſe ſores than before they were firſt healed.

* A free uſe of the limb has been ſo generally exploded amongſt regular practitioners, that it has been more neceſſary to inſiſt thus largely upon it; and this appears, not only from its general diſuſe, but alſo from ſuſpicions ariſing in the minds of ſenſible writers †, after other men of experience and reputation ſeem to have approved of it ‡.

† Bell on ulcers.—The following ſpecimen will ſhew how ſtrict an adherence to reſt, authors have required, "Il faut faire tenir la partie malade dans le plus grand repos; le moindre movement eſt capa-

 ble

‡ Medical Obſerv. and Inquiries, Vol. IV.

I am aware that ſuch argument appears to manifeſt diſadvantage, and may be thought to reſemble a circulus in circulo; however, it is conſonant to various maxims that were never diſputed: for inſtance, as a very nouriſhing diet would prove hurtful, where proportionable exerciſe was neglected, and vice verſâ, hard [illegible]or without adequate nouriſhment, but taken together, [illegible]ntribute to the health of the ſubject; ſo clearly has ex[illegible]ce proved to me, the inoffenſive, and ſalutary ef[illegible]f tight bandage and exerciſe united, in regard to [illegible]cers in queſtion.

The diet recommended in this method, may be as exceptionable to ſome people as any thing that has been advanced; but ſuch are deſired ever to keep in view the whole of the plan, one part agreeing with, and aſſiſting the other, and all of them conſpiring to the grand end in view, which is to heal ſore legs in ſuch a way as ſhall tend to perfect a cure; and which abundant experience has confirmed my firſt expectations of, and fully juſtified the attempt. And, indeed, were it not for the depending ſituation of theſe ſores, ſurgeons would ſcarcely have thought of the propriety of a ſparing, or low diet *, for ſo many months together, in the cure of them, nor yet of that frequent recourſe to purging, without which the

---

ble d'y faire des teraillemens, qui augmentent la douleur et la ſuppuration, detruiſent les chairs tendres qui renaiſſent, et briſent les primiers linéamens de la cicatrice." *Traitè des Tumeurs et des Ulceres.*

* See Bell, part 2. § 2. where the ingenious author declares himſelf of this opinion.

healing

healing up of old, or large ulcers is ſcare ever attempted. For theſe ſores, it has been ſaid, are not uſually attended with inflammation, and where they are, it is ſeldom difficult to be removed. Indeed ulcers of this claſs, are more generally to be met with in weak, relaxed conſtitutions, than amongſt ſtrong plethoric ſubjects of an inflammatory habit, and are in ſuch circumſtances more difficult to be cured.

But when a way is diſcovered, to prevent the ill-effects of exerciſe, and the deſcent of humors, as it is called, there can be no objection, (an evident ſtate of general, or local inflammation excepted) to any diet that would be found proper for ſuch people at another time; and which moſt are ſure to indulge themſeves in, as ſoon as the ſurgeon has taken his leave.

The above ill-effects, it has been already obſerved, are obviated by a proper bandage, and I hope it has been made appear *, that the ſeat of this ulcer being on a depending part, is not the chief hinderance to a cure, but its being an extreme part of the body, in which the circulation is leſs vigorous, and the vires medicatrices naturæ, for theſe reaſons, more languid and ineffectual.

If theſe things are allowed, many advantages muſt ariſe from ſuch a diet †, as hath a direct tendency to ſupport the patient in full health, and to aſſiſt the powers

---

* See Introduction, p. 22—26.

† Perhaps ſalted meats, and ſpirits, are the chief things to be interdicted.

of nature to create, and ſupport a diſcharge of laudable pus, the conſtant forerunner of a cure in every cureable ulcer.

The laſt article mentioned relates to medicines, of which ſome notice has been taken already, but it may be proper here to enlarge a little on the ſubject; wherein I hope not to forget the caution its importance requires. I know how eaſy, and how common a thing it is with ſome writers, in order to ſupport an opinion, to bear down their opponents on every occaſion, by declaring facts to be on their own ſide; which they often do not, and ſometimes indeed, are not permitted to produce. Such an argument, therefore, ſeldom comes with proper teſtimonials but from hoſpital practitioners, or muſt, at leaſt, expect to ſtand or fall, according to the ſhare of credit due to the writer. As far as that can go, however, in the preſent inſtance, I am encouraged to ſay, experience has led me to ſuſpect, that leſs is to be hoped for, and much leſs is required from medicines, than is generally ſuppoſed; ulcers on the legs being, in general, mere local complaints, not connected with any particular diſeaſe of the ſyſtem. It is poſſible, I may be ſomewhat ſingular in theſe opinions; whilſt others have produced their experience to prove, that ſore legs can only ſafely be cured by internal remedies. It is, however, by no means, my intention to aſſert, that medicines are never neceſſary for theſe, as well as other ſores; but that they are frequently preſcribed in a very indeterminate manner, and their effects are conſequently uncertain. But ſhould the patient labor under the true ſcurvy, or the ulcer follow the ſuppreſſion of ſome periodical,

periodical, or critical diſcharge, or the diſappearance of a long continued eruption on the ſkin—theſe, beſide other more common complaints, ſuch as evident ſymptoms of a venereal infection, the preſence of fever, &c. will conſtantly call for the phyſician's aſſiſtance, who will be at no loſs to purſue a rational intention. In ſhort, whatever is obviouſly wrong in the habit is to be corrected, but where there is no peculiar indication, I neither know how to preſcribe, nor to expect much benefit from medicines. If ſurgeons will reflect for a moment, they will perceive the import of this obſervation, let them conſider only what are the medicines uſually preſcribed, which, perhaps, excepting only the bark and cathartics, are adminiſtered under the idea of alteratives; by which ſome people intend a claſs of medicines that will effect a certain change in the habit, without ſo much as an idea, what that change is to be. The patient has a ſore; it looks ill, that is, it is not deterged, or will not continue ſo; the matter diſcharged from it is bad; or the ulcer is not diſpoſed to heal up.—Let every thing be done in ſuch a caſe, that has a tendency to mend the appearance of the ſore upon rational principles, and which generally is done for ſores on other parts of the body. Let ſuitable dreſſings be applied; let the patient enjoy the air, moderate exerciſe *, and a proper diet; let a tight bandage be applied to brace, and contract the ſore, to keep down the

* Celſus. lib. 7. cap. 3.

fungus, remove callous edges, and prove a tonic to the part. If theſe things fail, ſuch medicines ſhould be adminiſtered as will brace the ſyſtem, or correct its manifeſt defects, of which ſome mention will be made in their place—further than this, I muſt ſay again, I have neither known their uſe, nor the want of them †.

Having now attempted, at leaſt, to anſwer ſome principal objections to the plan I have propoſed, and explained what may be expected from it, with the manner in which the effect is produced, it is high time to proceed to a more particular application of it.

In order to this, it will be neceſſary to make ſome diſtinctions of ulcers, ſince the general indications cannot be alike appliable to each. And this would have appeared, with much more propriety, in a former part of the work, but it ſeemed of importance to be fully underſtood as I went on, and to obviate, as they

† By a modern French writer on this ſubject, we are adviſed, before the healing up of old ulcers, to correct the vitiated blood, and to purify it from the foreign leven with which it is infected. To this end he gives us ſix general indications.

" 1. Si le malade a la verole, le ſcorbut, ou les écrouelles. 2. Si " le ſang eſt chargè de bile. 3. Si le ſang eſt âcre et ſalè ſans être " chargè de bile. 4. Si le ſang péche par être trop épais, et trop réſineux. " 5. Si l'on judge que le ſang ſoit trop ſéreux. 6. En générale, il " faut, dans tous les cas, purger ſouvent le malade, mais le purger " doucement; lui donner tous les jours une ou deux priſes de quin " quina; et lui faire obſerver un regime exact, tant pour la quan- " titè, que pour la qualiteé de la nouriture."—If the reader can acquire any practical knowledge from the moſt of theſe indications, I muſt confeſs he has greatly the advantage of me.

occurred,

occurred, the difficulties of an attempt to introduce ſo conſiderable an innovation in practice. On this account, I have preferred this deſultory mode to a more conciſe and formal method, but ſhould I have ſo far ſucceeded, as to have pointed out a practice which others can with ſafety adopt, and furniſhed the ingenious with hints that may be depended upon, it is hoped, that ſome, or even many defects in other things will be overlooked. Thus much, however, may be ſaid, that many cures have been effected by the means now recommended, which have hitherto withſtood all the ordinary occaſions of relapſe.

The numerous diſtinctions of ulcers frequently met with in chirurgical writers, are taken chiefly from their different appearances, and the nature of their diſcharge, but when applied to ulcers on the legs, have moſt of them very little relation to practice, and amounting to no more than that their ſurface is in an illconditioned ſtate, make little or no eſſential difference in th e indications of cure.

The moſt eaſy and practical diviſion, will be to conſider them under two heads only, which are calculated to illuſtrate the preceding obſervations, and correſpond with the different treatment they will require.

The firſt claſs will include ulcers attended with great enlargement, or hardneſs of the limb; recent ulcers originating from an abſceſs, or any internal complaint; and every very old ulcer of a moderate ſize, eſpecially in habits accuſtomed to them.

The ſecond comprehends the true phagedenic ulcer; ſuperficial ulcers where the ſurrounding ſkin is excori-

ated by an exceſſive and acrid diſcharge; various large ones in very old people, or thoſe of a relaxed fibre and habit, and all *very* large ulcers with a pale and looſe ſurface, generally the conſequence of ill-health, poverty, or neglect.

In ſpeaking of each of theſe, it will be neceſſary to make ſuch enlargements and ſubdiviſions, as may relate to practical uſe.

And firſt, it will be proper to obſerve, there are two general affections, or ſymptoms, every ulcer is liable to, which will require their particular treatment. Theſe are inflammation and pain; for each of which it will be neceſſary to lay down ſome general rules.

With reſpect to inflammation, ſhould this attend a large ſore, where the pain is very conſiderable (for the pain ſo common in very ſmall ulcers, is ſeldom the conſequence of much inflammation, but rather of a thin and cauſtic diſcharge;) an emollient fomentation, and afterwards a bread and milk poultice for a few days, may be applied to advantage: but if ſuch a caſe can ariſe as to require a much longer continuance of a poultice, it ſhould be changed for one of the ſaturnine kind. This will furniſh the ſame moiſture and heat, and is not only a leſs relaxing application, (for ſuch it has been obſerved, ſhould never be very long continued to the legs*) but is a more powerful antiphlogiſtic. And here I may venture to repeat from a long experi-

* See alſo BELL on Ulcers.

rience

rience, that ſuch poultices and fomentations, however great their reputation, are ſeldom neceſſary but in the beginning of the cure, where the parts are in a ſtate of inflammation, and particularly in the poor, who have long endured, and ſtood much upon them in that ſtate; whoſe ſkin is likewiſe often dry and left dirty, and its pores conſequently obſtructed. But as ſoon as the inflammation and foulneſs on the ſkin are taken off, ſtrong digeſtives, with exerciſe and a roller, will produce a much ſpeedier and better digeſtion †.—This I am ſo ſatisfied of, that I have no kind of heſitation in ſpeaking peremptorily on the ſubject.

I wiſh to make one remark more on this head, which is, that when a bread and milk poultice is required, it ſhould generally be applied on the naked ſore ‡, whereby it ſits eaſier, and is much more uſeful, becoming the mildeſt application that was ever contrived, if it is well made ‖. And I hope I ſhall be pardoned

† Wiseman gives a caſe very much in point, and obſerves, that after confining a patient to the bed for a very bad ulcer, which he had poulticed a conſiderable time, he could not get it to heal till he left off the poultice, and applied a laced-ſtocking. Book 2. ch. 9.

‡ See Freke's Art of Healing.

‖ When I conſider the importance of a good poultice to ulcers, when the uſe of them is called for, and the number of pupils who viſit the metropolis every year, with an expreſs deſign of acquiring every kind of chirurgical knowledge, many of whom there is reaſon to think, have rarely ſeen a bread and milk poultice properly made; it is hoped, it will not be thought trifling on this occaſion to mention the beſt method of making it. This can be at the worſt, but a little

doned if I add, it ought generally to be made, and applied by the ſurgeon himſelf, or at leaſt in his preſence, and not intruſted to a careleſs ſervant, or ignorant nurſe, as it uſually is; the former of whom imagines no ſkill is required, and the latter, that no body can

---

little time thrown away, and if only one young practitioner ſhould make a better poultice by this means, or if one patient be benefited by it, I ſhall eaſily forgive others who may ſmile at the receipt; for however well ſurgeons know how to make them, the fact is, they are ſeldom well made.—It has been too generally thought, that theſe poultices cannot be boiled too long, but on the contrary, it is long boiling that ſpoils them.—They ſhould be made of the crumb of moderately ſtale bread, which ſhould be cleared from every thing the leaſt hard, or lumpy, and after being grated ſhould be rubbed between the hands, till it is reduced, as near as poſſible, to its firſt ſtate of flour. The milk ſhould then be boiled, and the bread lightly ſprinkled in with one hand, whilſt it is kept ſtirring with the other. The difficulty with which the ſpoon is moved, will ſhew when a proper quantity of bread is put in, after which it ſhould not remain on the fire above two or three minutes at moſt, and ſhould be turned out boiling, (by which means the bottom will retain its heat a long time, after its ſurface is cool enough to allow of its application) and be ſpread upon a piece of double linen cloth, by the help of a round-pointed knife (greazed with hog's lard or oil, inſtead of putting greaſe into it; which prevents its hanging together,) to the ſize it is required: and ſhould always be about three quarters of an inch in thickneſs on the linen. If poultices are too ſtiff or lumpy, they will lie heavy, and become painful to an inflamed part; if too thin, or not well mixed into an homogeneous maſs, they ſoon become cold, and chill the part they are intended to nouriſh.—If a poultice be applied to a depending part, ſuch as the eye or the breaſt, where it will be apt to ſlip off, it will be an advantage to turn up the four ſides of the inner cloth, about half an inch over the poultice; which will greatly ſupport it.

make

make one so well as herself; though there is not one poultice in fifty, made and applied by either of them, that is properly managed.—Before I quit this subject I cannot help adding, that if much benefit is expected from these applications, they should in many cases be renewed oftener than they generally are: for the want of this, the smaller ones especially, soon becoming cold, I am satisfied, are often likely to occasion more injury than good.

These, (it is well known,) are the cases which call for bleeding and purging, and for which I have likewise sometimes advised nitre and cicuta§, or opium; the last, however, is less proper if the inflammation be considerable; but the antiphlogistic regimen can never be required very long, for if the inflammation does not presently yield, there is probably some other cause for it than the ulcer, unless there be disease of the bone. The former, it will be the physicians province to discover and remove; but if neither of these should be the case, and yet the inflammation continue, it will not prove of the phlegmonous kind, and I can venture to say will yield together with the pain, to such topical applications as shall promote a discharge, and with the assistance of firm bandage and exercise, shall cleanse or destroy the two sensible surface; which will immediately

§ This may sometimes have one advantage of opium, as it hath no tendency to constipate the bowels, and if it has any other virtues than that of an anodyne, as some people have been of opinion, the patient will enjoy the advantage of them.

be

be followed by eaſe, and a healthy appearance of the ſore.

After what has been ſaid, another obſervation or two reſpecting the ſymptom of pain, is all that will be neceſſary. And here I remark that, ſevere pain muſt be mitigated, if it cannot be entirely removed, or nothing will go on well; whilſt the degree of pain, together with the nature of the diſcarge, will point out the moſt proper remedy for it; the quantity of the anodyne, is therefore not ſo much to be attended to, as its effects. I have known excruciating pain from ſmall ulcers, almoſt entirely removed by half a grain of opium, taken only every other night, whilſt at other times, three or four grains have given but little relief.

In theſe caſes, the diſcharge is always thin and acrid; and though ſuch vitiated matter may ariſe from the morbid ſtate of the ſolids, and of the ſecretory organs of the parts, which throw off ſuch kind of fluids as cannot be changed into laudable pus, yet this does not certainly ariſe from an inflammatory cauſe, and therefore is not always removed by antiphlogiſtics, and mere emollient applications; though it ever will be ſo, when that is the caſe. But if the habit is not particularly concerned, it ariſes more frequently from a want of that ſpecies, or degree of inflammation, which is neceſſary to produce well concocted pus*, which is therefore often induced by ſtimulating applications, which are a

* La ſeçonde cauſe (du defaut de ſuppuration) eſt le defaut d'inflammation dans la playe. *Traitè des Ulceres, &c.*

ſafe

ſafe and rational means of promoting it, and will as certainly be followed by a ceſſation of the pain †. and herein we go back as far as relates to ulcers on the legs, to the practice of the antients ‡, whoſe ointments generally conſiſted of the warm gums, ſpirits, and eſcharotics, which though in many caſes juſtly exploded from practice, in the treatment of ulcers in general *, are uſually of admirable efficacy, in ſuch as attack the lower extremities.

---

† PAREY ſpeaks exactly to this purpoſe in the cure of ulcers, lib. 12. cap. 9. where after having directed cataplaſms of ſolanum, cicuta, poppey ſeeds, and ſometimes opium, if theſe fail to procure eaſe in ſome caſes, he adds, "neque anodynis, neque narcoticis, ſedari poteris, imo blandis medicamentis appoſitis magis ac magis irritabitur. Itaque ad catherætica confugiendum erit, nempe fortibus morbis fortia remedia ſunt optima. Quare ulceri imponatur pulvillus forti et viribus aucto egyptiaco, aut paulo oleo chalcanti imbutus, his enim domandi efferi illius doloris vis eſt." To this he adds, "interim ulceri circumponetur refrigerantia, ne virium remediorum vehementia fluxionem excitet."—But this latter is obviated by the uſe of a proper roller.

‡ See GALEN, particularly his book De Compoſit. Medicament. ſecundum genera, and CELSUS. Lib. v. cap. 26.

* See BELL on Ulcers, who has made ſeveral very uſeful obſervations on this head, though the Freneh ſurgeons are ſtill of a different opinion, (as appears from the 4th volume of Memoires de Chirurgiè) and indeed ſome latitude muſt be allowed; for the fact is, that in the cure of every ulcer, as of fever, a certain degree of inflammation (or exertion of the ſyſtem) is neceſſary; and too little does as certainly, though upon a different principle from Plethora, fruſtrate the ſalutary intentions of nature.

I ſhall

I ſhall only add on this head, that the moſt painful ulcer in general, is that of the eryſipelatous kind, attacking the ſurfaces of parts: whatever dreſſings are applied to theſe ſores, ſome of them are intolerably painful for a long time together, though without true inflammation of the part. As the free exhibition of opium can here do no kind of miſchief, ſo will it render the moſt ſuitable dreſſings, which are apt at firſt to add to the pain, additionally uſeful.—But I ſhall have occaſion to ſpeak largely of this particular ſore in its proper place.

This probably will be quite ſufficient on theſe heads; we have here manifeſt indications before us, and the remedies are uſually ſimple and evident—not always thought equally evident, through the whole indications of cure.

Syſtematical writers, who have been fond of multiplying diſtinctions of ulcers, have been equally preciſe in their directions for obtaining a cure *. We are to digeſt, deterge, incarn, and cicatrize; ſinuſes are to be laid open, callous edges are to be removed by the knife, or deſtroyed by the actual or potential cautery; ſome intemperies is to be corrected, or the whole habit to be altered: and above all, they adviſe an horizontal poſition of the limb, and injoin abſolute reſt. The

* Compoſiti ulceris ad curationem multæ ſunt indicationes propoſitæ. PAREY.

whol

whole proceſs of cure is moſt accurately delineated, and ſome appoſite remedy preſcribed to effect every intention, as if art was ſufficient for it all, and nature had nothing to do in the buſineſs.—And indeed, were ulcers ſuch very tractable, methodical things, as the picture repreſents, memory might ſupply the place of judgment, and this part of ſurgery would be reduced to arithmetical exactneſs. But he whom practice has made moſt converſant with nature, well knows that her operations, and the arrangements of ſcience too little reſemble each other.

It is univerſally admitted, however, that except an ulcer becomes clean, it will not cicatrize, though practitioners are not ſo well agreed, concerning the beſt means of bringing it about. But we are always to know our proper place, art being in this, and in every other inſtance, a mere hand-maid to nature, to lend aſſiſtance in a way the moſt agreeable to her own laws.—In the introduction to this little work, an attempt has been made to reduce the principles of the cure of ulcers to two only, viz. an attention to the general vigor of the conſtitution, and to the action of the parts; but it may be alſo neceſſary to pay ſome regard to the nature of the different proceſſes that are going on in the healing of every ulcer. There is, it has been intimated, a production of new ſubſtance in its cavity, and a condenſation of its ſurrounding parts to a certain level and extent. By the union of theſe two means, nature accompliſhes her end. That theſe proceſſes do take place, may be known by an examination of the ſubſtance which is formed in the cavity of every cicatrized ulcer; and by the

he apparent evenneſs of the newly formed cicatrix with the neighbouring parts. And every one muſt have obſerved, that the loſs of ſubſtance is more evident at ſome months diſtance from the time of cure*, than on the firſt healing of the ſore.

Now, if the principles I have all along been laying down, as well as thoſe laſt mentioned, are at all juſt and rational, they will at once ſerve to diſcover the impropriety of depending upon very mild applications †, whilſt they inforce the expediency of the means I have recommended.

The cure, it is ſaid, is brought about, by the general vigor of the ſyſtem, and the action of the parts, together with an abſorption of thoſe contiguous to the ulcer; the moſt appoſite to which indications, are a proper diet, exerciſe, and bandage, with the external uſe of invigorating applications. And how much may be effected by them, experience alone can demonſtrate, and it is a principal deſign of this treatiſe to ſet forth.

---

* This obſervation has been long made in the caſe of thoſe foveolæ which remain after the ſmall-pox.

† Perhaps the very beſt of theſe is the ſuppurative poultice ſo much recommended by Mr. FREKE, but it does nothing without the horizontal poſition of the limb; and has even then been too frequently ineffectual, or it is probable, would not have been diſcarded from hoſpital practice. His intention, however, was perfectly rational as far as it went—"to ſweat out the diſeaſe:" an idea I have always had in view, inſtead of inviting diſeaſed parts to dry up; but I think it much better accompliſhed by other means, that do not require the horizontal poſition.

I am

I am happy, however, to find an author of conſiderable eſteem, and amongſt the beſt of the later practitioners, ſo much of my mind; I mean *Wiſeman*, who had continual recourſe to warm and active applications, and rarely dreſſed an ulcer on the leg in the firſt ſtage of the cure, without merc. corroſiv. ruber in one form or other. By this means, and the help of a roller, or laced-ſtocking, he ſucceeded much better than moſt practitioners have done ſince, with all our improvements*. And I am ſatisfied from what I have experienced, that had he allowed his patients to walk, and by the help of a flannel roller, had made a ſtill tighter compreſſion than the laced-ſtocking can pleaſantly admit, or effect, and had been yet bolder in the uſe of ſtimulating applications; he had not had reaſon to complain, that healing ſome kind of ulcers was in general only a palliative cure. For it has been very evident in reading his caſes, and comparing them with the experience I have had, that the principal things which he failed in

---

* Notwithſtanding all ſciences have been frequently improved by reducing them to a ſtate of ſimplicity, yet, in an attempt to purify them, artiſts have been ſometimes led to overlook the principles on which ſome practice has been founded, and have therefore diſcarded many things that were valuable—like ſome unprincipled empiric, who in order to get rid of an imaginary ill-humour in the blood, directs ſo large a quantity to be taken away, as reduces his patient to a worſe diſeaſe than he laboured under before; forgetting that the good and bad blood would run out together.

See Thoughts upon Amputation by Dr. KIRKLAND.

(beſides forbidding his patients to walk, which it ſhould ſeem, was not however always the caſe) was the not continuing his ſtimulating applications much longer than he did, and his changing them for very drying ones in the end, in order to haſten the formation of cicatrix. See his caſes, in chap. x. particularly, in reading which, I could not avoid being ſurprized he had not himſelf made the remark. The like obſervations may be made on Turner, who was in many reſpects but a copyer from him, but in others, ſeems to have had an advantage; and had he been well acquainted with the uſe of the roller, and been leſs fond of abſtinence and reſt, would have ſet an example, which after practitioners would have made but little improvements on.

Theſe things then, viz. exerciſe, bandage *, and active applications, may be ſolely depended upon in ordinary

* For ſome practical obſervations on the ſubject of tight bandage, inſerted in the Medical Obſervations and Inquiries, the faculty was ſome years ago indebted to the late ingenious Mr. ELSE, and though the practice was not new, may be ſaid to have been revived by him, having been of a long time neglected; and it is matter of concern, that no mention has been made of it ſince, as the date of his paper is in the year 1770. I had made uſe of tight bandage, however, long before I attended to that publication, and had Mr. ELSE been acquainted with, and enforced a plan ſimilar to this, I had not intruded my thoughts on the public; but as there is no diſeaſe (as that gentleman juſtly obſerved) more common in large hoſpitals than ulcers on the legs, it is become a matter of importance, to throw any additional

ordinary caſes; and where no ſpecific poiſon exiſts, they will effect every thing in this claſs of ulcers, which art hath hitherto accompliſhed by reſt, diet, and medicine; and will moreover effect ſuch a cure as will ſtand thro' all the ordinary ſituations of life.

Any common digeſtive is rendered deterſive in the degree it may be thought fit, by the addition of a little calomel, corroſive ſublimate, the white, or red precipitate, or by a ſmall portion of verdigreaſe; but, however uncommon the practice, it is ſometimes better to uſe the red precipitate alone in the firſt ſtage of the cure, where powerful digeſtives have proved ineffectual; and this the ulcer will alſo readily bear, when exerciſe, and a good diet are allowed. And here it is that the judgement of the ſurgeon diſcovers itſelf, in adapting his dreſſings to the nature of the ulcer, which (laying aſide the refinements, and nice diſtinctions I have ventured to diſcard,) muſt by one means or other, be brought to

---

ditional light on the ſubject. Moreover, as Mr. Else ſtill expreſſed his fears of healing old ulcers, and perhaps had found ſome difficulty in doing it, on the partial plan he recommended, I cannot help obſerving, that his ſuſpicions ſerve rather to ſupport this method, and have a tendency to demonſtrate the propriety of uſing ſtrong digeſtives which have been ſo much inſiſted upon, as well as the further deſign of not hurrying nature to dry up the ſore. I am led to theſe reflections, by Mr. Else having recommended only aſtringent or drying applications, and probably not encouraging, and perhaps not permitting his patients to walk, at leaſt there is no mention of it as a part of the practice in his hoſpital; nor any notice taken of his patients continuing well.

diſcharge laudable pus, whatever appearance its ſurface may have; for nothing goes on well till this is effected.—This, the moſt inveterate ulcers on the legs may be brought to afford, as freely as ſores ſeated any where elſe; unleſs, perhaps, thoſe on the head are excepted, which, I think, furniſh pus more perfectly album, læve, et æquale, than thoſe of any other part.

Probably nothing but experience can induce any one to think, how eaſily this may, in general, be effected by digeſtives and exerciſe, and how ſoon afterwards very troubleſome ſores put on a proper appearance, and are brought into a healthy, and healing condition. But where theſe things fail, recourſe muſt be had to more powerful means *, and ſuch as no ſurgeon is ever at a loſs for; which if freely applied, interpoſing lenient applications when the appearance of the ſore ſeems to demand them, will deſtroy the foul ſurface, and give nature (aſſiſted by a good diet) an opportunity to exert herſelf; and as Hoffman ſays on this very occaſion," ex voto ſuccedit conſolidatio."

Perhaps one of the beſt applications of this kind, is the merc. cor. ruber very finely levigated; this is peculiarly uſeful in ſmall and obſtinate ulcers, nor will it be immediately ſuſpected, with what freedom, and frequency this active mineral may be applied. It may be ſaid of this, as Hippocrates ſays of frictions, that it

---

* "Vulnera maligniora, valentioribus egent remediis; imbecillioribus, autem, mitiora."

Galen. de Compend. Med. lib. IV.

ſoftens

ſoftens the hard, ſtrengthens the relaxed fibres, deſtroys the unſound, ſtimulates, and elevates the growing fleſh; that it promotes, or diminiſhes diſcharge, and keeps open, or heals up the ulcer, juſt as you would direct it. Nor have I ſaid too much of it, with reſpect to a great number of caſes; for all this is the conſequence of a proper uſe of it, where a tight bandage is applied, and adequate exerciſe allowed. But then, it has been hinted, it muſt, for ſome of theſe purpoſes, be uſed in great quantity, and inſtead of being lightly ſprinkled over an ill-conditioned ſurface, the ulcer muſt be filled with it *, the ſurgeon taking up a large pinch of it, and boldly plugging up the ſore. It has been acknowledged, this is a very homely mode of dreſſing a wound, and nothing but a conviction of its advantages would have reconciled me to it.

It has been ſaid, that the above practice is particularly uſeful in ſmall ulcers; but in many large ſores, ſomething of the ſame kind will be found neceſſary.

---

* In the proceſs of this work, I was happy to meet with more authority for this practice than I expected, and looking over WISEMAN found him making uſe of the very expreſſion; to which practice, I am ſatisfied, he, as well as Dr. TURNER, owed much of their ſucceſs. The former tells us he performed cures on the legs in as few weeks, as the patients had been years under the hands of thoſe he calls the barber chirurgeons of the time. Book 2. ch. ix. SHARP ſpeaks as honourably of it, in the cure of ulcers on the leg, and intimates that it deſerves the credit it has obtained, but prefers it mixed with a digeſtive.

(Introduct. to Surgery.)

The foul ſurface muſt be removed, and the ſore brought to the ſtate of a freſh wound, which can be done only by the diſtempered parts being melted down (as it is uſually ſaid) by powerful digeſtives, or deſtroyed by corroſives; and till this is done, ſome obſtacle or other will continually ariſe *, but this once effected, you remove the greateſt hinderance to the cure. And it may be more eaſily done than is generally imagined, and though the ſucceeding ſurface ſhould put on the ſame unpleaſant appearance, after the firſt, or even ſecond application, eſpecially in ſmall ulcers, yet the amendment, though gradual, is not uncertain, and the pain is leſs ſevere than might be expected. The digeſtives are ſtill continued when the eſcharotics are left off, and the parts being, by theſe means, put into action, in general nothing further is required, than to wait till nature is able to accompliſh her proper work. The want of this ability, or occaſion to exert herſelf, is the grand impediment to the cure, and this reſtored once and again, will effect every thing that is required †.

There

* Ulceribus haud diligenter deterſis, hyperſarcoſis ſupervenire ſolet. PAREY de Ulceribus.—See alſo RHAZES, lib. divis. cap. 134. 138. In which caſe (ſays a modern writer) "the granulations are either ſoft and ſpongy, and ariſe only from the ſurface of the ulcer, or elſe riſe too high in the form of fungus, or ſoon ceaſing to ſhoot, are not followed by a diſpoſition to form a cicatrix; or if the ulcer heals, it ſoon breaks out again."

† From the very judicious obſervations on the Malvern waters with caſes annexed, publiſhed by Dr. WALL, it ſhould appear, that the good effects produced by them on ulcers of the legs, have ariſen from their

There is an ulcer I have hinted at, that ought not in this place to be overlooked, which is uſually very ſmall, and particularly affects the parts about, and even below, the ancles; which, indeed, cannot therefore properly be called a ſore leg. This is exquiſitely painful, and for ſome time I found it difficult of cure without reſting the leg, having ſo very little advantage from the roller; which can make no adequate compreſſion below the ſeat of the ſore. It was in theſe caſes more particularly, that *Wiſeman* preferred a laced-ſtocking, becauſe (ſays he) "I could not with a roller make a ſuitable compreſſion ſo near the ancle, without cauſing a ſwelling on the foot"—but this is certainly a miſtake, for having, at firſt, found the ſame difficulty, I was ſoon able to remedy it, by carrying the roller ſeveral times over the ancle and foot, ſo as to leave no part but juſt the point of the heel uncovered by the roller; and by this means, I alſo make a tolerable compreſſion below the ulcer itſelf: to which intentions, the circumſtance of the roller being made of flannel, very greatly contributes. Theſe

---

their volatile ſpirit. Such an idea agrees very well with the theory I have adopted, and which every day's experience has confirmed. Dr. WALL, indeed, in one place ſpeaks of the coldneſs, and aſtringency of the Malvern waters externally applied, but this is only an opinion he has taken up from ſome caſes, in which they had not proved beneficial; for he obſerves, they often occaſion ſo great heat in the part as to induce ſuppuration in cold tumors, and that, in almoſt every caſe where they have been uſeful, they have raiſed more or leſs of inflammation, and have often occaſioned very conſiderable pain for ſome days.

caſes are often attended with a conſiderable puffineſs, and a tetterous appearance of the ſurrounding ſkin, accompanied with a thin and acrid diſcharge, which renders the parts additionally tender; whilſt the little ulcer is almoſt perfectly dry, and cannot eaſily be brought to ſuppuration, till the complaint of the ſkin is removed. This I once thought was relieved by bathing the parts in Nevil-holt water, as lately recommended for this purpoſe, but I ſoon learnt, is much more ſpeedily removed by drying applications, which inſtead of the common cerate, may be ſpread on lint, or linen cloth, and applied over the uſual dreſſing to the ſore. This may conſiſt of cerat. alb. with bole and powdered alum, or the ung. rubr. deſiccativ. or in more obſtinate caſes, a compreſs of linen may be wetted in a ſolution of facch. ſaturn. and vitr. alb. with an ounce or two of camphorated ſpirit, in a pint of ſpring water; which, notwithſtanding the tumor, and heated appearance of the part, I never found diſagree *. If the ſore does not ſoon change its complexion, on the diſappearance of the affection of the ſkin, the little ulcer ſhould be filled with

* Theſe local affections of the ſkin, vulgarly called ſcorbutic, have no one ſymptom of that diſmal complaint, and being merely local, ſhould always be treated as a diſeaſe of the ſkin; for true ſcorbutic ulcers are of a very different kind, and will not endure the uſe of eſcharotics. See Dr. CULLEN's Synop. Noſolog. alſo Dr. LIND, on this diſeaſe.

precipitate *, pulv. angel. diſſolved lunar cauſtic, or any ſimilar eſcharotic, and when the ſlough is come out, be immediately repeated, if the ſore does not put on a kindly appearance, which it certainly will in a very little time; but the cure will not ſtand if this is neglected. But though ſo much has been ſaid on the bold uſe of very deterſive, and even eſcharotic applications, it is to be remembered, that recourſe is had to theſe, only where active digeſtives, aided by the bandage and exerciſe, prove ineffectual; and where this is the caſe, I reſt it upon future experience to prove the utility of them.

There is nothing I can be more ſatisfied of, than the propriety of the method here recommended. There is no ſmall ſore on the leg uſually ſo troubleſome to heal, by ordinary means, as an old ulcer near the ancle, and there are ſcarce any of the antient writers but mention it as ſuch; whereas, there is no ulcer on the leg, that is ſo eaſily, ſoon, and certainly cured, when properly treated. The numbers, and variety I have ſeen, leave me no room for doubt on this head; of which

---

* WISEMAN ſpeaking of ſuch an ulcer, has this bold expreſſion, which I doubt not was the reſult of experience, "the beſt anodyne had been to have filled it with precipitate." Book 2. ch. iv.—He was not afraid of the conſequence mentioned by Hippocrates, or knew better how to diſtinguiſh caſes, than to be in any danger of the evil he mentions; who ſays, "Thrinon Damonis filius, habebat malleolum ulcus, juxta nervum ſane non purum, huic a pharmaco corroſo contigit, ut opiſthotonos moreretur."

Epidem. lib. v.

ſome

ſome have been from three to thirty years ſtanding, breaking out again as conſtantly as they were healed, and inexpreſſibly painful. But if not of the phagedenic kind (of which I ſhall treat in another place) are perfectly cured, in a few weeks, by taking much exerciſe, and dreſſing with the warmeſt digeſtives, (or where theſe fail, by a free uſe of precipitate,) and a bandage. This may be very tightly applied, if no conſiderable inflammation attends, or as ſoon as this ſhall be removed by bleeding, and a few days application of *Freke*'s ſuppurative poultice *; which it will be ſometimes proper to begin with, if the ulcer is deep.

In ulcers of long ſtanding, and where the conſtitution is thought to be concerned, it ſometimes happens that beſides a large ſore, the leg ſhall be exceedingly ſwelled, with hard tumors, or lumps, in one or more parts of it, which will not always be diſſolved by the diſcharge from the ulcer. Here, the application of a large piece of oiled-ſilk will produce the happieſt effects, and with ſafety diſperſe the indurations. And it ſometimes happens, that the other leg will be equally ſwollen, and exceedingly hard, though without ulceration. In which caſe alſo, whilſt a copious diſcharge is kept up from the ſore, the tumid leg ſhould be rolled, and covered with a like piece of oiled-ſilk; which, by exerciſe, will daily produce a conſiderable perſpiration, and without the leaſt aſſiſtance from medicine, will bring down the

* See his Art of Healing—his poultice conſiſted of figs, onions, marſhmallows, and white lily roots.

hardneſs

hardneſs and ſwelling, by the time the ulcer on the other is healed. This direction, however triffling it may appear, I have found ſuch evident advantage from, that I think I ſhould not have done juſtice to my ſubject, if I had not made particular mention of it.

I have ſeen, I think, ſome of the worſt of theſe and other caſes, in which recourſe is uſually had to a variety of internal remedies, where the cure has gone on, at leaſt, as expeditiouſly without them; or has been effected, after very powerful ones have been adminiſtered in vain. And perhaps a little time may diſcover, how very few there can ever be occaſion for.

Wherever ulcers are connected with diſeaſe of the ſyſtem, it has been granted, the aſſiſtance of medicine will be required, all that I mean to inſiſt upon is, that this is not generally the caſe. The true ſcorbutic ulcer, attended with ſpongy gums, and other marks of putreſcency of the fluids, does not very often occur in this Iſland, or at leaſt in the neighborhood of the metropolis; and the ſcrophulous very ſeldom attacks the legs in the form of ulcers. The venereal indeed, more frequently occurs, or at leaſt, ulcers will partake of the poiſon, and I have ſeen alſo the cancerous, or ſomething very like it; but as there will ever be, in theſe caſes, ſomething characteriſtic to their cauſe, the ſurgeon can ſeldom or never miſtake them.

There is a medicine however, in pretty common uſe, that ſeems to claim an attention, and perhaps has been of ſervice in ſome caſes, though I am not yet ſatisfied they would not have got well without it. This is the corroſive ſublimate, which in very large, and old ſores, has,

has, in compliance with cuſtom, been frequently adminiſtered with ſeeming ſucceſs. But it is often improper for labouring men, who are much out of doors, and for obvious reaſons, more eſpecially in winter. However, where theſe objections do not equally take place, every ſurgeon of experience will judge for himſelf, what advantages he may reaſonably expect from the uſe of it.

There is, nevertheleſs, one kind of ulcer, improperly termed ſcorbutic, and is uſually of very long ſtanding, that is frequently aſſiſted by medicine; but this generally attacks the poor, who have either injured their conſtitution by hard drinking, or on the contrary, have been in want of almoſt the neceſſaries of life. In ſuch caſes, the bark as a tonic, is of wonderful efficacy, and ought in many caſes, to be given in much larger doſes than it uſually is; and in a few inſtances, for a conſiderable time. It is inferior perhaps to no medicine, unleſs it be a ſolution of the blue vitriol, which is likewiſe peculiarly efficacious in reſtoring the tone of the ſtomach (as it is uſually expreſſed) in hard drinkers, as well as in ſtopping the progreſs of gangrene; which I have ſeen it do, three or four times, after the bark had been adminiſtered in vain.

To avoid returning to the ſubject of internal remedies, I ſhall here name other two medicines; a ſtrong decoction of the woods, and lime-water. The firſt will be of ſervice chiefly in caſes of obſtructed perſpiration, and cutaneous eruptions, or the ſudden diſappearance of them; the other, in the eryſipelatous ſore, eſpecially where a great part of the limb is infeſted with a ſcald-

ing

ing diſcharge, which takes off the ſkin wherever it runs. But we ſhall be diſappointed, if we depend on this, or any other internal means; at leaſt I have always found external applications much more effectual.

Having now ſaid every thing that can be neceſſary, with reſpect to cleanſing and incarning, and pointed out a few uſeful medicines, and ſome particular caſes in this claſs of ulcers; I ſhall cloſe this part of the work with ſome obſervations on healing, an article of as much importance, as any that have been noticed.

This laſt proceſs of nature is by no means to be hurried; and if every thing is right, and the bottom of the ulcer become ſound, no particular means will be required for it, it being in general, ſufficiently diſpoſed to heal of itſelf, and will in many caſes, even with the uſe of ointments not a little digeſtive*. For it is ſuppoſed (as will ſoon be explained) the more active ones have been weakened already, but not ſo much as to become mere greaſy applications; which (eſpecially warmed ones,) upon this plan, do as much injury, by relaxing the parts, as do very drying applications, when uſed to haſten the production of the cicatrix †.

If this latter be attempted too ſoon, and eſpecially if early recourſe be had to drying applications, the ſurgeon will ſoon perceive his miſtake. The ulcer, and

---

* WISEMAN particularly notes having cleanſed, incarned, and healed ulcers on the legs, by the uſe of precipitate.

† See BELL on Ulcers—upon the relaxing nature of warmed applications. Medio tutiſſimus ibis.

particularly

particularly ſuch as are termed conſtitutional ſores, attended with diſeaſed ſkin, and are of very long ſtanding, will put on an unpleaſant appearance; and when they have ſeemed diſpoſed to heal up, ſmall ones will be formed in the diſtempered parts of the ſkin, which in a while becomes pappy, and denotes the parts underneath to be unſound. Hence matter may be forced up by preſſure, through many little orifices, putting on ſuch an appearance of diſeaſe throughout a great ſurface of the limb, as may diſcourage the ſurgeon from expecting a cure, without a great length of time, and aſſiſtance from reſt. But all will go well notwithſtanding, under the advantage of good rolling and exerciſe, if the diſcharge be kept up; for the exerciſe, inſtead of protracting the cure, I am ſatisfied, tends in ſuch caſes, directly to inſure it; and I accordingly always deſire it may be increaſed. All that can be neceſſary, is to lay the ſmall contiguous ſores into one, by a ſlight touch of the lancet, which will afford very little pain, as the parts are now become perfectly ſodden, and the ſkin parted from the edges of the ſore: or ſhould this be objected to by the patient, the little holes may be filled up, once or more, with precipitate, and the cure will go on as effectually, and almoſt as ſpeedily as could be wiſhed.

It was ſaid, the digeſtive after a time may be weakened, and this may be done without improperly diminiſhing that diſcharge, which it has ſo often been inſiſted upon ought to be kept up: for when the moſt active digeſtives have been uſed, in bad caſes, for two or three weeks, the ſtimulus from exerciſe will ſufficiently

ently maintain it; and it is a good maxim to proceed gradually to that change between a copious diſcharge, and its total ſuppreſſion, which ſhould be always kept in view through the whole of the cure.

As ſoon then as the ſore, however large, puts on a perfectly healthy appearance, this change in the dreſſing ſhould begin, and the digeſtive be repeatedly weakened, three or four times at ſuch intervals as the ſize of the ſore, and the time ſuppoſed neceſſary for its cure, ſhall point out. This is particularly requiſite, if it ſeems to be at a ſtand, or to heal very imperceptibly.

But great caution is required not to be too haſty in this, or to continue it, if the diſcharge is ſtill very conſiderable. An attempt to ſuppreſs this is always improper, and if it ſucceeds, will indeed divert the diſcharge ſome other way for a time, but without any advantage to the patient; and the matter inſtead of burſting through the ſkin, as was mentioned where that is diſeaſed, will form a paſſage in different places through the ſurface of the ſore. In this caſe, the bandage ſhould be drawn tighter below the ſeat of the ulcer, and the matter by preſſure with the fingers, at each dreſſing, ſhould be carefully forced up; the ſurgeon muſt likewiſe return to more active digeſtives again, by which the ſore will ſoon recover a more pleaſant appearance. But if no ſuch change ſhould preſently take place, either more time is required to cleanſe ſome diſtempered parts in the ulcer, or elſe the whole ſore is unſound to the bottom. In the former caſe, time, it has been ſaid, will do every thing that is wanted; but if it does not,

recourſe

recourſe muſt be had again to eſcharotics, which, if no bone is diſeaſed, will invigorate the parts, and ſoon improve the diſcharge; or if ſtronger be uſed, a thick ſlough will be made, and the ſurface, the moment that is thrown off, will be clean, and will put on a promiſing appearance again.

Upon this head it may be proper to obſerve, that when large and old ulcers are brought to a copious diſcharge, whilſt the ſurgeon, from their unkindly nature, is afraid of too haſtily weakening his digeſtives, though the ulcer may be very conſiderably diminiſhed in ſize, it will often be proper to defend its tender edges, and new ſkin as it is called, with a litttle cerat. epulot. or ſome ſimilar application, leſt the powers of the digeſtive ſhould injure its yet tender ſtructure. But it may be ſtill better, in very irritable ulcers, and ſuch as are much indiſpoſed to heal, to ſpread a margin of cerate on the ſame dreſſing, that the whole may be covered with one piece of lint, by which means the diſcharge finds a readier way to run off: a matter of the greateſt importance in ſuch ulcers as are eaſily offended. The pledgit, for this reaſon, ſhould likewiſe extend conſiderably beyond the ſurface of the ſore, eſpecially in ſmall ulcers; or the tightneſs of the bandage will prevent the matter from eſcaping, and thereby occaſion a continual irritation, which will diſpoſe the ulcer to ſpread. But though cerate is allowed of with the view I have mentioned, the uſe of very drying applications will, by no means, haſten the cure in this claſs of ulcers

cers, which, perhaps, contains much the greateſt number.

It may then be laid down as a general maxim, that they ſhould rather be ſuffered, than invited to ſkin over; and to ſpeak plainly, I would, eſpecially in thoſe of long ſtanding, rather irritate than coax them, for I know they will heal in the end, nor will time commonly be loſt in ſo doing. For if every part is become perfectly ſound, the bandage will furniſh that warmth which inclines them to heal; whilſt on the other hand, if nature be not yet diſpoſed entirely to ſuppreſs the diſcharge, the ſurgeon, as hath been ſhewn, by attempting to heal up the ſore, will have great part of his work to do over again. For this reaſon, dry lint, blue vitriol*, nor hard compreſs †, ſhould never be uſed, though I know they

---

* WISEMAN experienced this in a caſe that appeared to be going on well, but ſuddenly turned foul, and in a few days became as bad as ever. (Book 2. ch. 9.) This, however, ſeems to have been his uſual method, and it muſt be acknowledged, that ſome ulcers on the legs may be ſafely healed in this way, after they have put on a promiſing appearance; but others will frequently prove deceitful, and become fouler than ever upon the uſe of drying applications.—Some ulcers thus healed will likewiſe ſtand well, but there is no adequate rule to determine by; and therefore would a ſurgeon make ſure of healing an ulcer, and perfecting a cure, eſpecially where exerciſe is allowed, that muſt not be his method.

† See Mr. ELSE's paper in the Med. Obſerv. and Inquiries, where he ſpeaks of covering the ulcer with a ſheet of lead; ſo alſo a late French author, though, indeed, the practice is very ancient.

have ſucceeded for a preſent cure in ſeveral inſtances. The caſe, indeed, is different, when patients, at this period, are confined, dieted, and purged, (though upon that plan ſores are not ſo ſoon brought into a good ſtate;) ſuch applications may then both agree, and expedite the healing of the ſore: but ſuch being rather deſiccated by art, than cicatrized by nature, it is moſt probable, many ſuch patients muſt ſoon make application again.

The habit is to be firſt gradually relieved, and to ſpeak a popular language, the humors are to run off, and the change from a long accuſtomed, or copious drain, to be cautiouſly effected; but which gradually abating as the wound diminiſhes in its ſize, nature, however abhorrent of ſudden tranſitions, will when left to herſelf, in a reaſonable time find ſome other vent. This remark, it will be ſuppoſed, is peculiarly applicable to ulcers of long ſtanding, but although in more recent caſes, it may not be ſo neceſſary that nature ſhould find ſome other outlet than the ulcer, nevertheleſs, all the above reaſoning, as far as it relates to practice, will generally hold good: though it may perhaps be better accounted for upon very different principles*. Experience proves that few ulcers on the

* Having already offered an opinion on that ſubject (vide the introduction p. 37, 38.) when ſpeaking of the good or bad effects ulcers have on the conſtitution, which, it was ſaid, were probably rather owing to irritation than the diſcharge; it was more natural to expreſs myſelf here in the common language of writers upon this ſubject.

legs,

legs, though brought into a clean ſtate, ought to be healed by any other means than preſerving them ſo, nor will any other, under the directions here given, in ordinary caſes, be found in the leaſt neceſſary. Every ſurgeon knows very well, that the great difficulty reſpecting the cure of ulcers, and more eſpecially thoſe on the lower extremities, is to bring them into a good and healing ſtate, and when that is accompliſhed an entire cure will follow of courſe. This is one reaſon that wounds on the head fill up ſo readily; they are not long in a foul ſtate, and therefore after a few days uſe of ſome lenient digeſtive, want only to be kept clean, or at the moſt, to have their luxuriant granulations kept within bounds, which are merely a conſequence of ſtrong digeſtive powers, and of nature over-doing her part. But in the caſes before us, there is little of this to be apprehended, for it has been ſaid, the conſtant and firm preſſure from the roller, (which may be increaſed as may be found neceſſary,) will always keep down this looſe fungus. It will therefore be ſufficient to apply a mild, defenſive plaiſter, or ſometimes one more drying, (as formerly recommended, if there are heats on the ſkin) which ſhould be ſpread only on a piece of doubled linen, and be laid over the digeſtive; but if hard compreſs, or merely drying applications are laid on the ſore, the ill-conſequences I have mentioned will generally follow, or the ſore, for want of proper digeſtion, will break out again.

Upon the above plan, however, every objection to healing the ulcer, as well as our fears for its return, are ſufficiently obviated, and for want of which, the au-

thor of the paper in the Medical Obſervations, appears to have obſerved the above unpleaſant effects; for if old ulcers are dried up inſtead of digeſted, and ſkinned over inſtead of being cleanſed and incarned †; if any thing is ever to be apprehended from the ſuppreſſion of an accuſtomed diſcharge, or the leaſt attention to be paid to the depending ſite of a wound, it is here we muſt expect all the evils that theory ſuggeſts, or experience is ſaid to have proved. But indeed it generally happens, that ulcers thus healed, form a callous cicatrix, which ſoon falls off when the parts are not ſound underneath, and ſo prevents the miſchiefs expected. Whereas, having thoroughly digeſted the ulcer, and brought it into a healing condition, leave it wholly to nature at this particular period, and not only will the cure be effectual, but, as hath been obſerved, will often be accompliſhed in as little time, as it is uſually done by reſt, diet, and purgatives, with the aſſiſtance of all

† HIPPOCRATES ſpeaking of recent ulcers, hints at this expeditious method of healing under particular circumſtances, but how inapplicable to the caſes before us, reaſon and experience will determine—"aut ſi quis avertat (viz. ſuppurationem) ut omnino non ſuppurentur, præterquam neceſſario, eoque pauciſſimo pure, et ſicca ſunt quam maxime, ex medicamento non moleſto,"—though in another place he adds, "ulcera non purgata, non committi ſolent, etiamſi adducuntur, neque ſua ſponte coeunt. *De Ulceribus* § v.

But TURNER ſpeaks expreſly and boldly on the ſubject, "to incarn (ſays he) before we mundify, or deterge before we digeſt, is building without a foundation, or to lay ſuch foundation on the houſe-top.

the

the alteratives, as they are called, that I have ever ſeen uſed.

Only large ſores will afford any difficulty; whatever pain, ſwelling, or humors, ſo called, attend ſmaller ulcers (of this claſs), they will occaſion very little trouble, after a little experience of this method of treatment. The copious diſcharge, which a proper diet, exerciſe, and the digeſtives always produce, remove theſe, and many other ſymptoms, that are found ſo troubleſome on every other plan; and ſoon bringing the ſore into a healing ſtate, uſually no further difficulties occur, if the bottom is ſound. If therefore, after this period, a large ulcer is found indiſpoſed to heal up, (though there is no other reaſon for ſupecting miſchief at the bottom) and the uſual ſtimulants are found ineffectual, the ſore after the uſe of them, ſtill continuing at a ſtand; ſomething further is neceſſary: the powers of nature being, in ſome habits of body, often inſufficient to cover a large ſurface with new ſkin, without other aſſiſtance, and a very different ſtimulus, which will preſently be deſcribed.

This brings me to the ſecond claſs of ulcers, which in ſeveral reſpects, requires a treatment different from the preceding. It was a juſt obſervation of *Ambroſe Parey*, "neceſſe quoque eſt varia adeſſe medicamenta, viribus pariter et virium gradibus diſtincta;" for ſays he, "nihil mirum ſit, ſi ſuo ſæpe excidant fine, qui eodem medicamento, omnia maligna ulcera curant, et ſanare ſe poſſe putant*.

* Cap. ix. lib. 12.

Under this head, then I ſhall treat that ſpecies of ulcer called eryſipelatous||, or herpes exedens, occupying merely the ſurfaces of parts, which is always glaſſy, and in its firſt ſtage, eaſily offended by every unctuous application; alſo many ſmall ulcers, attended with an eryſipelatous affection of the ſkin, furniſhing a copious, and almoſt cauſtic diſcharge; the true phagedenic, and various large ulcers in very old, or poor people, and in patients of a relaxed fibre and habit; including every *very* large ulcer of long ſtanding, with the like pale, and looſe ſurface, the conſequence of bad health, neglect, or intemperance. Not that I mean to imply that no very large ulcer will yield to the former method, nor that the means there laid down, have no ſhare in the cure of thoſe now to be conſidered, unleſs the eryſipelatous be ſaid to afford an exception; for whatever be the circumſtances of the ulcer, it is to be digeſted and deterged, before we proceed to incarn.

Theſe things premiſed, the cure of every ulcer is to be undertaken with the ſame intentions; powerful ſuppuratives, digeſtives, and deterſive applications are to be uſed, and we are to proceed to eſcharotics as occaſion requires. But when active remedies under every form are found to diſagree, after a ſore has been properly digeſted, and has put on a tolerable appearance, it is to be ranked in the ſecond claſs, however ſmall it may be; and eſpecially that ulcer, the moſt obſtinate of any,

---

|| Introduct. p. 18,

deſcribed

deſcribed under various names *, and uſually known amongſt us by that of the putrid or phagedenic.—I ſhall begin with the eryſipelatous.

I have uſed this term, for the want of a better, to deſcribe an angry, ſuperficial ulcer, which is ſometimes likewiſe accompanied with an affection of the ſkin that will ſpread over the greateſt part of the leg; and chiefly attacks the aged and infirm. It always furniſhes abundance of thin, and very acrid diſcharge, eſpecially if the ſurrounding ſkin is affected, rendering the limb intolerably painful; and when the dreſſings are removed, frequently emits a ſteam like boiling water. I have known poultices and fomentations long uſed to no purpoſe; the ulcer either not healing at all, or breaking out in freſh places almoſt immediately, and the pain ſtill increaſing. Purges likewiſe are here of no uſe; as to medicines, opium and bark ſeem of the greateſt avail: the pain muſt be mitigated, and the habit be ſtrengthened. The dreſſings ſhould likewiſe be calculated to prevent fluxion to the part, or not the leaſt advantage will be gained; and in this ſpecies, I have never ſeen any harm from ſuppreſſing the diſcharge, though the remedies may increaſe the pain at their firſt application. Having, in bad caſes, made uſe of a mild ſuppurative poultice for a ſhort time, to cleanſe the ſkin, and empty the little inflamed and obſtructed glands, by promoting their ſuppuration; I always uſe ſome di-

* Ἕλκος φαγεδαινικον, or Νομὴ of the Greeks.—Ulcus depaſcens, rodens, or ſerpens; ulcus ambulativum; ulcus putridum, et phagedæniçum.—L'Ulcere Putride.

geſtive to the deeper parts for two or three days. After which, an ointment made with as much true armenian bole as *Goulard*'s pomatum will take up, may be applied to them, or a cerate to which ſome fine crocus martis is added, inſtead of the pulv. lap. calamin; whilſt the whole limb, when the ſkin is affected, ſhould be covered with the unguent. ruber. deſiccat. and after a while, with a compreſs wetted in the drying ſolution, made with ſacch. ſaturni and album, formerly mentioned, to avoid loading the ſkin with the ointment. With ſuch applications, it will be uſeful ſometimes to give the cicuta, and aq. calcis minus compoſ. or the Liſbon diet-drink, where the pain has been ſo far abated, as to admit of laying aſide the opium, and there is no peculiar indication for the bark. But if the above means ſhould fail, recourſe muſt be had to the aſtringent ſolution, or ointment, I ſhall preſently deſcribe, which will certainly be effectual; and will, I believe, in many caſes, prove a valuable addition to chirurgical pharmacy. This is of itſelf, the remedy for thoſe ſmall ulcers attended with ſuch an affection of the ſkin, as will cauſe a ſteam to riſe from it like boiling water, which, after applying a poultice a few days, I am not afraid of ſuppreſſing by this means; and indeed have found medicines incapable of doing it.

Where almoſt the whole leg has been affected, a thick ſcurf, or ſcab will remain for a conſiderable time, which muſt not be haſtily rubbed off. But the parts may, now and then, be touched with a little unguent. cærul. mit. and ſometimes be waſhed with the drying ſolution

till

till the ſcales fall off of themſelves, or are very eaſily ſeparated; at which time the ſkin will be ſound, and perfectly ſmooth underneath. In all ſuch caſes, a piece of oiled ſick, ſhould now and then, be applied under the roller, about the time the ſcabs begin to looſen, though ſome of the ſores ſhould not yet be healed up; which will haſten the ſeparation of the ſcales, and take off the ſtiffneſs of the limb. This ſhould likewiſe be worn for a ſhort time after the cure is compleated, which it will contribute greatly to the continuance of, but muſt occaſionally be laid aſide, if it induces too great moiſture on the ſkin; and the flannel roller be continued.

From theſe I paſs on to the phagedenic ulcer; in treating on which, perhaps every thing will be ſaid, that can be neceſſary for any other large and troubleſome ſore, claſſed under this general diviſion.

This ulcer is always attended with an obſtinate callus, on the edges, and on ſome parts of its ſurface; is ſtreaked often with red lines, and is foul, glaſſy, and ſmooth, or reſembles a newly made wound, where a portion of fleſh has been rudely torn away by the bite of an animal. It is very eaſily offended, and often ſpreads and eats like a canker, on the application of common eſcharotics*, (which, indeed, it will ſome-

* See FREKE's *Art of Healing*. So alſo PAREY from GALEN, "nam diuturnior, et copioſior ſiccantium, et detergentium uſus, "ulcera excavant indies; quare (ſays he) prudens videbit medicus, "quando à valentioribus detergentibus, et corrodentibus ad mitiora "ſit digrediendum." Cap. ix. lib. xii.

times

times do under any treatment) the acrid matter either diſſecting its way between the muſcles, by deſtroying the cellular membrane; or by eating through the ſkin. Its edges always put on an irregular, and unkindly appearance, are often ſwelled, and ſtreaked with blood-veſſels like the bottom of the ſore, and are diſpoſed, from their laxity, to bleed upon the ſlighteſt touch. This ulcer generally takes place in the very pooreſt people, whoſe blood is broken down by hard labor, or intemperance; is very difficult to cure, and when very large often baffles every attempt of the beſt hoſpital ſurgeons.

There are, however, more ways than one to ſubdue many of theſe obſtinate ſores; and to this, the free exhibition of the bark will greatly contribute; which in ſome of the conſtitutions I have deſcribed, is more efficacious when joined with aromatics.

Where the patient's ſituation will conveniently admit of reſt, (though indeed the remedies may be adminiſtered without it *,) a fomentation uſed for a few days, and the ſuppurative cataplaſm †, ſupported lightly by

---

* The different intention with which a common bread and milk poultice, and that now recommended, is made uſe of, is ſuch, that although the former is ſeldom of much ſervice unleſs the patient be at reſt, and kept warm in the bed, the latter, from its potential warmth, will anſwer tolerably well when lightly ſupported by a flannel roller, though the patient be ſuffered to walk; which he may do, not only about the houſe, but to the ſurgeon's to be dreſſed, or examined, as I have repeatedly proved.

† Vide page 106.

a flannel

a flannel roller, about a week longer, never fail to leſſen the moſt troubleſome ſymptoms, and ſo far to ſubdue them, as to render this ulcer more tractable under ordinary means. That kind of dreſſing, beſides every other advantage, has that of abſorbing, and therefore ſheathing the corroſive, and cauſtic diſcharge, increaſed by moſt other dreſſings, to the great aggravation of the diſeaſe.

When the callous edges become ſoft, their inequalities are removed, and a fine ſkin begins to cover them, the poultice may be diſcontinued, and the ulcer be dreſſed with ſome mild ſuppurative ointment, with the occaſional addition of a little ſaturnine cerate, which is peculiarly friendly to this irritable ſore; or ſometimes, the cerate made with crocus martis, but more frequently, the beſt application, in this ſtate, is *Goulard*'s pomatum and bole juſt now mentioned *. By theſe means, the ulcer will become manageable, and will ſoon bear more effectual remedies. This period may be known, both by the appearance of the ſore, and by, now and then, mixing a little red precipitate with the digeſtive. If it will bear this, a very few days will produce a wonderful change, healthy granulations will ſhoot, the remaining calloſities will diſappear, (which may be haſtened by repeated ſcarifications) the hollow

* Beſides experience, ſuch ointments have the ſanction of all the old writers from the time of GALEN, who conſtantly adviſe ſome preparation of lead with the abſorbent earths, or other powder, for this malignant and eating ulcer.

parts

parts will fill up, and, probably, no further difficulties will ariſe. And here, I muſt return to the caution, feſtina lente, which can ſcarcely be too often repeated with regard to ulcers on the lower extremities. But whenever gentle eſcharotics, and powerful digeſtives are found to diſagree, recourſe muſt be had to lenients, either ſuch as are above mentioned, or at times more ſuppurative ones, according to the particular appearance of the ſore; now and then interpoſing a dreſſing with a little precipitate, whenever the cure ſeems to be at a ſtand.

By theſe means I have ſucceeded in very troubleſome ulcers of this ſpecies, though perfectly intractable at firſt with every common digeſtive, and abhorrent of ordinary deterſives; and I believe they will generally ſucceed very well if the ulcer is ſmall: but if it be very large, it will not always be healed by them, without reſt, and if that be permitted, they will commonly break out again. Mr. *Freke* indeed, in regard to theſe caſes, has ſpoken very poſitively of the effects of his ſuppurative poultice, but it will certainly prove inſufficient when there are large fungi, or of very long ſtanding. The diſeaſe often runs too deep, with too hard a callus, to allow the parts to get unloaded, and however ſuppurative the poultice, it is not active enough to anſwer the end. The hardened parts, however, muſt be removed; and it may be proper in this place, to hint at a method of treating them that is often preferable, becauſe much leſs ſevere, than the cautery, or total exciſion with the knife. It is true, a fungus but rarely occurs, ſo as to prove troubleſome, under the plan I have

have mentioned, and which both the bandage and exerciſe, have an uniform tendency to prevent; yet it ſometimes happens that a large and hard fungus is formed ready to our hand, and is generally the conſequence of a bad bottom to the ſore. If this ariſes from a narrow neck, it may often be removed by preſſing ſome fine lint pretty firmly round its baſe, or if this fail, a tight ligature may be eaſily paſſed round it. But if the baſis be large, and it ſhould not ſeem diſpoſed to yield to digeſtives and bandage (which the ſofter fungus generally will, as the bottom of the ſore is leſs frequently unſound,) it will be ſufficient, in moſt caſes, to make one deep inciſion to its bottom, after which its ſides will generally waſte away by digeſtives and bandage: but ſhould this prove inſufficient, eſcharotics ſhould be ſprinkled between the lips, and be occaſionally repeated, till the fungus ſubſides. This effected, proper digeſtives ſhould be continued, by which the diſcharge will be kept up, and every thing Mr. *Freke* expected from his ſuppurative poultice will be happily accompliſhed, without the baneful effects of reſt of the limb; and without it, he never looked for a cure.

The large phagedenic ulcer is the only one that will create any great difficulty to the experienced ſurgeon; ſmall ones, of whatever duration, and whatever may be the age and conſtitution of the patient, as far as I have ſeen, are healed by the above means, with eaſe, expedition and ſafety, after having withſtood a variety of others under a tedious confinement. And many common large ulcers, though deep, with diſeaſe of the ſkin to a conſiderable extent, it has been ſaid, are cured in a very

very reaſonable time, and require nothing but patience; I mean require the caution ſo frequently given, not to be anxious to heal them entirely, till the ſurface is perfectly good, and they are diſpoſed to it with any common dreſſing. But the very large phagedenic ulcer, which is eaſily put out of humour, and diſpoſed to ſpread on every little occaſion, is that which will prove the ſkill, and ſometimes try the patience of the ſurgeon.

However, from what I have known, I can venture to recommend a method to others; though it is confeſſed, want of opportunities has limited my experience in the worſt ſores of this kind, which falling to the ſhare only of the pooreſt people, are ſeldom ſeen but in large hoſpitals, which I have therefore occaſionally viſited, purpoſely to make obſervations upon ulcers on the legs, by comparing ſome of the worſt caſes with thoſe I have been concerned for. The poverty, and evil cuſtoms of theſe patients, indeed, greatly aggravate the complaint, and though the plan recommended be ever ſo well adapted to the diſeaſe, want of compliance on their part may render it abortive; and it is poſſible, there may be ſome caſes will yield to no treatment whatever.

If very active applications are uſed, in the form of an ointment, theſe are often moſt advantageouſly applied to the large, and irritable ſore, upon a thin piece of ſponge; by which means very deterſive ointments will agree very well for the ſhort time they are neceſſary, when they would otherwiſe eat the ulcer into holes, and give it a raw, dry, and indigeſted appearance. I received this hint, from what *Freke* ſays on his poultice, that it abſorbs the acrid diſcharge, whilſt it conveys to

the

the ſurface of the ulcer a ſuitable application. This led me to reconſider the very frequent uſe the ancients made of ſponge, which is one of the many valuable remedies of antiquity, that the moderns have indiſcriminately diſcarded; though it is in many caſes, one of the fitteſt means of conveying appoſite dreſſings to a ſore, that was ever deviſed. It is liable to no poſſible objection that I know of, in point of utili y, if not made uſe of too long, and which every ſurgeon will know how to avoid.

There is however a very bad phagedenic ulcer, and always a large one, that diſlikes almoſt every thing in an unctuous form,, at leaſt will not be healed by ſuch applications, till brought into a different ſtate; that is, till its ſurface is braced.—There is here, I apprehend, no virulent humour, as is uſually ſuſpected, no virus that wants to be diſcharged at the ſore, nor an irritans aliquid which nature cannot otherwiſe get rid of. Facts demonſtrate the contrary, for not only do patients enjoy very good health, after getting rid of the ulcer and their limb together, by undergoing a painful operation; but the cure of ſome of the worſt of them, proves ſuch ideas to be rather apologies for the want of ſucceſs, than founded in the reaſon of things. Sores have been, healed and are by empirics under all circumſtances, and no ſuch dreadful evils have enſued; but we have not known their art, and have contented ourſelves with ſuppoſing it to be unſafe, and diſputing the propriety of a cure we have not been able to effect!—Hic labor, hoc opus eſt.

This, I would ſtir up my brethren to attempt, and think they may ſucceed oftener than it is imagined; and perhaps

perhaps the moſt rational means is to remove the local affection, a relaxed, and therefore irritable ſtate of the parts. That this has been frequently the great obſtacle to their cure, it were eaſy to prove by a variety of obſervations taken from healing ſores, and from ſuch as having promiſed well for a while, and then looking pale a few days, have run into a gangrene; or at leaſt have continued at a ſtand—but I am ſatisfied, every experienced ſurgeon is before hand with me, and is inclined, at leaſt, to ſuppoſe it probable, that the hint may be juſt.

It is not deſigned, however, to dry up ulcers on the legs, as one would a ſcratch on the finger; the veſſels of the part are firſt to be freed, and the ulcer properly digeſted, and deterged; eſcharotics are to be applied if found neceſſary, and the ſore to be treated as directed in the former part of this work, ſo long as nature is diſpoſed to be active; but the moment ſhe flags, or cannot be rouzed to a ſalutary exertion, by ſtimulating applications and exerciſe, (or whenever ſuch applications offend) the inference is as obvious, as an attention to it never fails to be uſeful. The ſore is to be *braced*, and the parts diſpoſed to contract; the certain conſequence of which will be a freſh, and healthy appearance of the ulcer; a pretty ſure ſign we have not miſtaken the caſe, and that the means we are uſing cannot be wrong.

But if this be attempted too ſoon, and eſpecially if the treatment be begun with it, the plan is perfectly irrational, and the cure will not be accompliſhed, or cannot be expected to continue. For this reaſon I have objected to the early uſe of thoſe drying applications, which ſome empirics have entirely depended on; as well

well as againſt dreſſing ulcers with aq. vegitab. miner. tinct. myrrhæ, dry lint, and covering the ſurface with lead; which I may venture to ſay, would, at leaſt, be uſed with more ſafety and ſucceſs at a later period, when ſores are well cleanſed, and nature flags under fruitleſs efforts to cover a large ſurface ſhe cannot firſt ſufficiently *contract*. And here, I cannot but remark, that there are but very few parts of the body, on which we meet with ſores ſo large as thoſe on the legs, where the whole ſurface is to be covered with entire new ſkin. Surgeons are always careful to preſerve a great deal of ſkin when they take off any of the larger limbs, or a tumor of any conſiderable ſize; from whence it is, that although the ulcer, a few days after the operation, ſhall be very extenſive, the cicatrix at laſt is not often larger than a half crown-piece, or even a ſhilling: and it is on this account, that large ſurfaces are ſometimes ſo readily healed. But there is frequently great difficulty in thoroughly cloſing a ſore occaſioned by a burn, on any part of the body, when the true ſkin and adipoſe membrane have been deſtroyed to a conſiderable extent *. Such caſes, in this reſpect, approach the neareſt to the ulcers in queſtion, of which the old ſkin can be brought over only a ſmall part of the ſurface, and the reſt is covered entirely by new. In all ſuch caſes, the lotion

* In ſuch inſtances, though a patient be ever ſo healthy, we are apt to ſay, that the conſtitution long accuſtomed to the diſcharge, is thereby indiſpoſed to ſuffer the ulcer to cloſe. But it is very probable, it may often be better accounted for, on the principle juſt now mentioned.

already hinted at will wonderfully aſſiſt the cure, by enabling nature to contract the ſurface, and leſſen the dimenſions of the ſore.

But however, and whenever bracing applications are uſed to the legs, they ſhould not be continued throughout the cure, nor longer than is abſolutely neceſſary; but being gradually weakened, the laſt ſtage ſhould be effected, if poſſible, by ordinary means, and with the cautions laid down in the foregoing pages.

The ſolution may frequently be made uſe of merely to waſh the ſurface of the ſore, or ſometimes may be applied on a piece of doubled linen, (for lint ſticks too cloſe to the ſurface) its edges, (in very bad caſes) being firſt ſpread with any mild cerate, to prevent them from adhering too tightly to the ſkin, and thereby confining the diſcharge; and ſhould therefore be ſomewhat larger than the ulcer. There are however ſome very large ſores that require a more effectual method, and the ſolution is moſt advantageouſly applied, for a ſhort time, on a thin piece of ſponge; but as the ſore contracts, and becomes dryer, the granulations are apt to ſhoot into it, and the ſurface will bleed on taking it off. A ſlice of new bread may then be ſubſtituted, a little time longer, in its ſtead, which will equally abſorb the acrid diſcharge; but this will be neceſſary only when the ſore is yet very large, and has been much diſpoſed to ſpread, or very unwilling to heal. And ſhould we, now and then, meet with a caſe, wherein the application of the ſolution upon bread, may ſeem neceſſary for many days together, as this may be thought an uncommon, and aukward manner of applying a dreſſing, the baſis of the

ſolution

ſolution may be rubbed down very fine with a few drops of oil, and made into an ointment with ingredients more or leſs ſuppurative, or otherwiſe, according to the particular circumſtances of the caſe. But if none of theſe difficulties appear upon leaving off the dreſſing with ſponge, a piece of linen wetted in the ſolution, may be laid on the ſore; or even waſhing it with the ſolution may now be ſufficient, and a mild digeſtive, or in very obſtinate caſes, the cerate with crocus martis, or *Goulard*'s pomatum and bole, be applied to its ſurface. To this, a little precipitate, or corroſive ſublimate, may ſometimes be added to advantage, if an ulcer has been in a very irritable ſtate, and it is apprehended may not have been perfectly digeſted.

Some of theſe phagedenic ulcers with a very large ſurface, and of very long ſtanding, are of a naſty greeniſh hue, exceedingly foul and indigeſted, and ſo painful that they cannot endure the tedious proceſs of ordinary deterſives, but as hath been obſerved, are exceedingly aggravated by them; they are cleanſed, however, in one or two dreſſings, by ſome ſuch lotion as the aqua phagedænica, for the lotion that paſſes under that name, is too ſtrong to be ſafely applied with freedom to very large ſurfaces †. Or, if ointments containing mercury are thought proper, the ceratum citrinum is one of the moſt powerful, or an ounce of ung. baſil. flav. with a ſcruple of the mercur. corroſ. ſublim, will form

† It is likewiſe a very inartificial preparation, formed upon erroneous principles, by which the intention is very much fruſtrated.

an excellent deterſive. They ſometimes, however, prove very painful applications, and ought never to extend beyond the ſore, as they may bliſter the part all around, and bring on an eryſipelatous inflammation.

The lotion I juſt now hinted at, is indeed generally preferable; this I have called a deterſive lotion, to diſtinguiſh it from that I formerly mentioned, and conſiſts of a mild ſolution of ſal. martis, with a very ſmall portion of mere corroſ. ſublim. a thick piece of crumb of new bread well ſoaked in this ſolution, and bound on the ſore at going to bed, will often cleanſe it in one night, and produce a diſcharge of as laudable pus as the ſurgeon can wiſh for; nor will frequent repetitions be neceſſary. It will then be ſufficient in general, to waſh the ulcer with it before the ordinary dreſſings are applied. But ſhould the ulcer ſpread again after a while, though it has been perfectly digeſted, and looked as well for a time, as a common ſore on the arm, recourſe muſt be had to the firſt mentioned lotion. The looſe flabby ſurface muſt be braced, and contracted, (and this is fitly done by aſtringents, which invigorate and warm without relaxing) which every ſurgeon knows always produces a freſh and pleaſant appearance, lightly granulated, but without a diſpoſition to bleed upon every touch of an armed probe; which by the by, is ſome times uſed more freely in wiping the ſurface of ſores than is ſafe, and generally much more than is neceſſary.

This lotion is very ſimple, yet is exceedingly deterſive, and by means of its bracing powers, gently corrugates

rugates the ſurface, and by kindly urging nature to action, gives it a florid and ſtrawberry appearance, but without leaving that dryneſs upon it, which common aſtringents, and particularly alum, always induce. And it may be neceſſary here to obſerve, that though applications merely aſtringent or drying, are in general very improper, for reaſons that have been repeatedly hinted at, experience proves there are ſome things of the aſtringent kind, which are likewiſe deterſive, that may frequently be uſed with advantage and ſafety. It was not, however, without long attention to the ſubject, and numberleſs attempts, that a ſafe and ſuitable preparation has been diſcovered; ſuch an one, as will not only brace, but cleanſe the ſore, and preſerve a pleaſant appearance of its ſurface, whilſt it diſpoſes it to heal; ſuch an one, as according to the ſtrength it is made of, will abate, or preſerve the diſcharge, will ſtimulate the riſing granulations, and urge nature to exert herſelf, or will more powerfully corrugate its extreme veſſels, and diſpoſing them to contract, prepare them to cicatrize at the edges of the ſore.

Such, it is thought, is the ſolution frequently hinted at, and that it will often anſwer all the purpoſes required in large and obſtinate ulcers. It may ſafely be uſed to every very large one, and in perfect conſiſtence with the plan of not compelling them to dry up, if it is not uſed too early, or continued too long; and which the prudence, and experience of the ſurgeon will determine. This is made of the vitr. virid. ad albitudinem calcinatum, diſſolved in aq. font. and prepared

of ſuch a ſtrength, according to the nature, and extent of the ſore, as the practitioner ſhall think fit.

This ſolution is a very powerful, though perfectly ſafe remedy, and together with the other means, has been hitherto ſucceſsful in caſes, which I think I ſhould not have conquered without it. But it ſhould be only in the hands of ſurgeons, who will vary its aſtringent quality and ſtrength, to the circumſtances of the caſe, and will not attempt to dry up old ulcers in the mode of empirics: for if made of an improper ſtrength, it becomes a very different application, and will alone induce a ſkin on the ſurface of many ulcers that are yet in a very undigeſted ſtate, and unfit to be healed—but fitneſs and ſafety are not the objects of that claſs of practitioners, and to whom therefore a little knowledge is a very dangerous thing.

Thus far ſome experience may be ſaid to have gone, but how much farther this plan may with ſafety and advantage be extended, it is time only can prove: I am of opinion, however, from what I have ſeen, that the treatment laid down in theſe pages, may be applied to ſome ulcers attended with a caries of the bone. But I deſire to acknowledge, that I have not yet had opportunity of proving it, where I have been certain the bone was affected; which it is well known, will ſometimes throw off a ſmall portion without being perceived in the dreſſings. However, when the ulcer is only of a moderate ſize, and the injury has not penetrated ſo deeply into the bone, or the pain and inflammation are ſo great, as to render a very long confinement abſolutely neceſſary; I think I may judge from analogy, the methods

thods propoſed will ſucceed in a variety of caſes, wherein art has prevailed at length, under the circumſtances of reſt, and the horizontal poſition of the limb. And allowing only a certain time of confinement at a neceſſary period, when the bone is exfoliating, (which may be haſtened by ſlight perforations into the ſound part) exerciſe will on the other hand, have a very conſiderable advantage through the reſt of the cure; for as a degree of inflammation is the proceſs, by which nature throws off ſphacelated portions of bone, it being perfectly ſimilar to that which takes place in the ſofter parts of the body, I may venture to think this proceſs may go on better, and if it ſucceeds, far more ſafely, with moderate exerciſe than by abſolute reſt, as the cure is likely to be more laſting, if not ſo expeditious, this way. We know how much can be done, even in the foul air of an hoſpital, under the hands of experienced practitioners, in ſome very bad caſes; though this is certainly ſometimes prevented by the cloſeneſs of the place, or the patient accidently taking a fever *. If theſe riſks could be avoided by the patient being, with ſafety, permitted to take as much exerciſe a part of the day, as might maintain him during his cure, perhaps now and then a limb, or a life might be ſaved; or, at leaſt, the attempt, it is hoped, might be juſtified.

---

* Beſide theſe diſadvantages, there is another very common in hoſpitals; which is the cuſtom of taking off the dreſſings from ſore legs, ſometimes an hour or more before they are dreſſed up again. The bad effects of this practice muſt be evident to every man, but will be more ſo, by compariſon, upon leaving it off.

But after all that can be ſaid, the neceſſity of amputation, in ſome caſes, cannot be diſputed; but if I am not greatly deceived, there is reaſon to hope ſuch will not often occur, after this method ſhall have been for ſome time adopted. For patients will then have been informed, that ſore legs are cured without confinement from their families or labor, and that ſo cured, they will not be afterwards liable to return, but from the ſame cauſes that produced them at firſt. Theſe conſiderations will, probably, encourge moſt patients to ſeek advice very ſoon, and though ſome of the poorer amongſt them ſhould procraſtinate longer, many may nevertheleſs get effectual help when they apply; which will be likely, at leaſt, to prevent the diſmal effects of a mere temporary cure.

Beſide the few caſes which, but for amputation, are beyond the reach of art, others have been mentioned, which manifeſting the exiſtence of internal diſeaſe, with morbid affection of ſome of the viſcera, where it has always been preſumed an external drain muſt prove ſerviceable, it may become a matter of doubt, whether their cure may be ſafely attempted *, or the ſubſtitution of

* Ulcers attending the leg in old people, ought to be looked upon as critical, and therefore ſhould not be healed. LE DRAN. So HEISTER, and many other eminent writers.—The opinion of AVICENNA is ſo very emphatical, I hope I ſhall be excuſed if I give the quotation. "Sed in ſenioribus non ſanantur eorum ulcera—et quandoque ſanantur, deinde reſcinduntur, quoniam non generatur in eis caro,

of iſſues be a ſufficient ſupply in their ſtead. Here the phyſician ought to be conſulted, and indeed it were to be wiſhed this was much oftener done in ſurgical caſes, than it is; he would furniſh the ſurgeon with ſome uſeful hints on various occaſions, and whilſt they proceeded pari paſſu together, the patient would not have to repent it in the end.—But in the preſent inſtance, ſhould they be of opinion that the diſcharge from a large iſſue would be inadequate * to the drain from the ulcer, they may perhaps be in the right, and the patient will probably chuſe to err on the ſafe ſide. There are certainly facts which favor either ſide of the argument, and therefore ſome latitude muſt be allowed, and the diſcretion of practitioners muſt determine in particular caſes. *Wiſeman*, for inſtance, gives us a remarkable one (book 2. ch. ix.) of a young woman afflicted with a bad ulcer

---

caro, niſi ante mundificationem; quando ergo retinetur in eis ſuperfluitas non munda, oportet inde ut corrumpatur continuitas proveniens ſecunda." *De Ulcerib. lib. iv.*—I have ventured, however, to cure ulcers of many years ſtanding in very old people, and one many years ago in a lady upwards of eighty years of age, whom a very eminent ſurgeon had cautioned againſt ſuffering it to be healed; all of whom have ſince enjoyed good health, and the ulcers have ſhewn no diſpoſition to break out again.

* See BELL on ulcers part 2. § 2. on the nature and quantity of pus diſcharged from a common iſſue—add to this, the very moderate diſcharge many ulcers furniſh when left to themſelves, or dreſſed as they uſually are by paupers, with a little very bad cerat. epulot. But reaſoning from facts, it appears full as probable, that the advantages of natural, or artificial drains, ariſe more from irritation, than the diſcharge from the ſore. See Introduct. pages 37, 38.

on her leg, which for a long time refiſted every means uſed by himſelf and others, on account of ſuppreſſed catamenia, which periodically occaſioned a foulneſs of the ulcer; till at length the ſore being healed by the aſſiſtance of a laced-ſtocking *, the woman enjoyed perfect health, and the menſes ſoon afterwards returned in their natural courſe. Suffice it to ſay, that many ulcers have been cured where the bad conſequences apprehended have not enſued, nor, as far as I could learn, have they ever broke out again.

Some caution however is neceſſary, but it conſiſts in very few things, viz. purging, temperance, and continuing the bandage for ſome time.

Though purging has been ſo ſtrictly forbidden, with a view to invite the ulcer to heal, during which proceſs, to prevent conſtipation is all that, in general, ſhould be aimed at; yet when the cure is nearly accompliſhed, ſuch a courſe is ſuggeſted with the greateſt propriety. A few briſk purges, at convenient inter-

---

* That this, and many of WISEMAN's beſt cures were effected by a tight bandage, and often by a free uſe of precipitate, is exceedingly apparent.—Speaking of ulcers with great loſs of ſubſtance, which he dreſſed with baſilicon mixed with precipitate, (which he there obſerves he uſually carried in his ſalvatory) he expreſſes himſelf thus.—"I then rolled it up with expulſive bandage, the cure "indeed conſiſting mainly in the well rolling—by the uſe of it, both "the influx was taken off, and the member ſtrengthened." And again ch. 8. on the ulcer with callous lips, he ſays, "the ſpeedy cure of this "I imputed to the laced-ſtocking, it performing all the intentions "neceſſary to the curing of many ſuch like ulcers."

vals,

vals, ſhould at this time be directed, according to the age and ſtrength of the patient. The roller, it was ſaid, ſhould be continued for ſome time, the ſize and duration of the ulcer, with ſimilar circumſtances, which every ſurgeon will have reſpect to, will determine the length of this period; for if the ulcer has been very large, and of long ſtanding, it will be neceſſary to continue the roller a conſiderable time.—It need, however, be worn only for a few weeks during the night.

This is all that is required; adviſing, however, that caution proper for every convaleſcent, to attend for a time to his general health, and to take a purge now and then, if a conſtipated ſtate of the bowels ſhould require it. To theſe, indeed, was added a caution to the intemperate, ſince, doubtleſs, a certain manner of living, may render this, and the cure of any other complaint, of very uncertain duration. If men will run quo ducit gula, they muſt themſelves, and not the phyſician or ſurgeon, who has once or more cured them, abide by the conſequences.

BEFORE I cloſe this little work, I ſhall venture to offer a few practical obſervations on another ſpecies of troubleſome ulcers,

When

When I began to reflect on the great advantages that had reſulted, in many bad ulcers of the legs, from a bold uſe of the mercur. corroſiv. ruber, and of ſome digeſtive ointments of a warmer compoſition than thoſe in common uſe, as well as from a generous diet and exerciſe, it was natural enough to extend the trial of them in other troubleſome ſores; the reſult of which experiments has, indeed, exceeded my expectations, and I can now venture to recommend them to the trial of others, and particularly, in cold glandular tumors about the neck, ſuppoſed generally to be of the ſcrophulous kind; which however, frequently appear, and break into very troubleſome ſores, without any other marks of that dreadful complaint.

I was further encouraged in theſe attempts, by ſome obſervations of the late Mr. *Freke*, who indeed was a man of a lively and warm imagination, and ſometimes a little eccentric, but was nevertheleſs a thinking man, and had plauſible reaſons to aſſign for every part of his practice. I found his ideas of theſe caſes (as well as of diſeaſed bones) ſerved to confirm me in the opinion I had entertained both of the diſeaſe and the remedy.

I have now, for ſome time, uſed the precipitate with great freedom in ſcrophulous affections of the neck, and with all the advantages I almoſt could wiſh.—If the ſwellings are at all diſpoſed to come forward, but are not broke, or have only a ſmall orifice, I always haſten the maturation, and the diſſolution of the ſkin as far as it is diſeaſed, by means of epithems made of honey, flour, and yolk of egg. I am very little concerned to what extent the ſore ſhall run, as I know I ſhall have much

much diſtempered gland to deſtroy underneath, and that if the latter be not effectually done, the ſore will either not heal entirely, however ſmall it may become, or will ſoon break out again. The ſcars, however, are even ſmaller, than when the ulcers are treated in the ordinary way. For the ſkin, in this part, being thin, frequently looſe, and yielding, the tumor beneath it removed, and the ſores healing up much ſooner than under the lenient method; I have known them, when cured by the above means, leave no more than a ſeam, and a little redneſs to be obſerved afterwards, without any proper ſcar on the part.

The only diſagreeable circumſtance that can attend ſuch a practice, I apprehend, is the poſſibility of a ſalivation, of which I can ſay only, that it has never happened to me; though before I relied ſo much on external means as I now do, I have given mercurial medicines in ſmall doſes, for a conſiderable time, whilſt I have made uſe of precipitate daily with great freedom. Moreover, as it is very common to preſcribe ſea-water, or ſome other laxative, in theſe caſes, the riſk of a ſalivation, I imagine, will in general be very little. But ſhould even ſymptoms of it appear, every practitioner, as he will know the cauſe of it, will immediately take care not to increaſe it.

I am now however perſuaded, there will generally be little or no occaſion, for adminiſtering mercurials inwardly, or any other medicine under the idea of an alterative, (at leaſt, I am afraid, we know of none adapted to the diſeaſe) much leſs for frequent purges, which ſerve only to reduce the vis vitæ, which, in theſe caſes,

is always too languid already. I find likewiſe, the ſores heal up as kindly without, as where mercurials, antimonials, cicuta, neutral ſalts, or ſea-water are made uſe of, all of which I have formerly preſcribed with great freedom; and I cannot doubt, that the plan I mean to recommend, (when the lungs are not affected) will be very frequently ſucceſsful in the hands of every other gentleman, who will give a fair trial to it.

If the patient be unhealthy in other reſpects, ſuch medicines ſhould be directed as appear ſuitable to his complaints, when the bark will, I believe, be frequently found as uſeful as any; and I have met with one very evident inſtance of the efficacy of a ſtrong decoction of the woods, and crude antimony. But in a general way, I depend upon nothing ſo much as procuring a good and early maturation of the tumors, and ſuppuration of the diſtempered ſkin and glands, by means of the aforementioned epithem; a very bold and continued uſe of the precipitate; a nouriſhing diet, and as much exerciſe as the patient can well bear; eſteeming walking the beſt of all. To this end, the patient ſhould be encouraged to be continually on his feet, and abroad in the air as often as the weather will ſafely admit of it; and of whatever age he be, after beginning this exerciſe in a way that ſhall be quite agreeable, to increaſe it daily, till he goes to bed every night exceedingly fatigued. The advantage of this*, I have had ſuch proofs

* Nihil eſt, quòd utiliſſimam ſuperflui et nocentis humidi perſpirationem tam egregiè juvet, quam motus corporiſque exercitatio, qua

proofs of, as leave me no room to doubt of the propriety of venturing to recommend it, as far as ſuch experience may be ſuppoſed capable of doing it.

To obtain the advantages that have been hinted from the uſe of the precipitate, ſcrophulous ulcers ſhould be filled with it, and if a ſlough is formed by it, (which will not always be the caſe) the ſuppurative epithem is the beſt dreſſing till the ſlough is thrown off; when the precipitate ſhould be immediately repeated. The firſt, and a very early advantage, from ſuch an uſe of it, will be a change in the diſcharge, both in quantity and quality, which from having been too little, or from an abundance of corroding ſanies, will be changed to a moderate diſcharge of good and laudable pus; and the ſore, except when a ſlough is produced by the application, will always look clean. In a little time there will alſo be a favorable change in the parts contiguous to the ulcer, the ſwelling will ſubſide, and from a red and heated appearance, the ſurrounding ſkin will acquire its natural color, and the patient himſelf, or his friends, will be able to judge of the favorable turn in his caſe.

I have adviſed a daily uſe of the precipitate, which indeed I intend almoſt literally; for when a good deal

---

qua tuendæ ſanitatis vix præſentius datur auxilium.—Peregrinatio ad omnium ſalubritatem pertinet, quia non modo cum continuo motu, ſed frequentiori etiam aeris in ſalubris in ſalubriorem mutatione conjuncta eſt, quæ tuendæ ſanitati et corpori a pluribus morbis præſervando egregiè velificatur.

HOFFMAN. De Motu optimo Sanitatis Præſidio. Cap. 9. et ſeq.

of

of the gland has been deſtroyed, the ſore and ſurrounding ſkin will be found to contract under the uſe of it, as if an aſtringent application was made uſe of; and the parts will actually heal up to the breadth of a ſtraw, whilſt this active mineral, which has already deſtroyed a cluſter of diſtempered glands, is daily applied.

I know it is an opinion with ſome people, that ſcrophulous ſwellings ought not to be invited to ſuppuration; though not from an idea that they will heal leſs kindly in conſequence of early maturation, but ſolely from the difficulty of healing them whenever ſuppuration takes place, and the abſceſs is burſt. But ſince ſcrophulous tumors, and particularly thoſe of the neck, almoſt conſtantly end in ſuppuration, at one time or other, though not at all invited to it by art; and ſince experience has proved the very conſiderable advantage of bringing them to an early and copious maturation, which both prevents ſo much of the glands being affected, and occaſions a more perfect diſſolution of that which is already diſtempered; I can confidently adviſe the early uſe of the ſuppurative epithem*. It will be a means of preventing many of the ſad effects of leaving them for months, and even years to themſelves, in habits of body ſo ill calculated to get rid of diſeaſe; and wherein medicine is univerſally acknowledged to afford ſo little aſſiſtance.

---

* Hence, probably, it is that the Malvern-Waters have ſometimes proved ſo beneficial in theſe caſes. See the note on Malvern-Waters—page 102.

But

But ſhould a ſchrophulous tumor in this part be unuſually large, it may be treated in a ſomewhat different manner; it ſhould, however, be ſpeedily brought to a ſuppuration, by the epithem already mentioned; or ſhould this be done to our hand, as it will conſequently contain a good deal of pus, the glands will thereby be conſiderably diſſolved. On this account, there will not only be leſs occaſion for ſo bold a uſe of the precipitate, but the extent of the tumor being conſiderable, it will be of conſequence to preſerve a good deal of the ſkin, if there is no objection to doing it. Therefore, if that is not in a very bad ſtate, (which it frequently indeed is, before theſe cold tumors ſuppurate plentifully) it will be found very convenient to open the abſceſs, by making only a puncture with a lancet, firſt at the top, and then at the bottom of the tumor, ſufficient to paſs a ſeton through it; or it may be done at once by a ſmall ſeton-needle, armed with a ſlender ſcane of cotton or ſilk. Beſides every other advantage of this method of diſcharging the matter, which will alſo be gradual, is the excluſion of air; a point ſcarcely enough attended to in the treatment of abſceſſes. The ſeton being introduced, ſhould be drawn up and down at leaſt twice every day, and ſometimes be moiſtened with ſome proper deterſive ointment; and occaſionally ſprinkled with precipitate. The conſtant irritation of the ſeton, will tend to diſſolve the remaining hardneſs of the glands, far more than any common poultice, which frequently ſerves only to deſtroy the ſkin without affording that ſtimulus to the parts underneath, which this ſore always requires. The irritation of the ſeton will alſo diſpoſe

the bottom of the abſceſs to throw up healthy granulations, the moment the hardneſs is diſſolved, and the ſore will thereby heal up kindly, more expeditiouſly, and with much leſs ſcar, than could be expected from the extent of the tumor; no more than the marks of the punctures, and a little redneſs of the ſkin, as it was obſerved, remaining afterwards to be ſeen.

Should the punctures made by the ſeton, however, not be diſpoſed to heal in a reaſonable time, after the ſilk is withdrawn (which ſhould be gradual, by removing a few threads at a time,) and yet no freſh hardneſs take place, nor the diſcharge be increaſed; the little orifices may be eaſily dried up, by dreſſing them twice a day with bits of lint dipped in a mixture, conſiſting of a little new milk, and a drop or two of extract. ſaturni, which by this means will be thickened to the conſiſtence of a liniment, and becomes a very uſeful application to many other very troubleſome ulcers; of which I firſt ſaw the good effects ſome years ago, in a very different caſe, under the direction of Mr. *Watſon*.—If the edges of the punctures become callous, a few touches with the lunar cauſtic will ſoften them, and diſpoſe the punctures to heal.

If I might be permitted to offer any further hints on theſe troubleſome ſores, and to judge from ſome favorable circumſtances joined to a little experience, I ſhould hope the laſt mentioned method will afford ſome conſiderable aſſiſtance in ſome ſcrophulous abſceſſes about the joints of the upper extremities, if the patient be likewiſe ſent to the ſea; which I have ſeen attended with the happieſt effects.—As for thoſe on the lower ones, beſides every other diſadvantage they labour under, that

of

of depriving the patient of good air and exercise, forbids me to expect any very material improvement upon the common method of treatment.

These things are all I mean to propose for these ill-conditioned tumors, which, I believe, will often require no other assistance. And I am persuaded, more may be effected by them, and much sooner, than is frequently done by the various alterative medicines, and other means that are generally prescribed; unless in some instances, it be sea-bathing, the great advantages of which are extreamly uncertain in particular cases, and to be known only by the trial of it: every practitioner having often found his utmost expectations exceeded by it in some, whilst in others, his patients have returned from the sea much worse than they went there.

It is not unlikely, that such an use of the precipitate as I have now been recommending, may be already known to other gentlemen of the profession, but it is certainly not the common practice, nor has it, I believe, ever been made public; and from what I have known myself, and been informed of by others, of the success of ordinary means, I can venture to say, that the cure will often be more expeditious and certain, as well as less unpleasant, if the plan should be generally adopted.—It is scarcely necessary to add, that after the cure, or just before it is compleated, it will often be adviseable to open an issue in some convenient part of the body, as well as to attend carefully to the diet, and continue the exercise for a time.—Should the patient have been subject to ophthalmia, or have other mark of scrophula in the habit, he must pass a summer at the sea.

BEFORE I ſpeak of the milk-abſceſs, I ſhall in this place obſerve, what perhaps ſome gentlemen may thank me for, that I can venture to ſay, the aſtringent ſolution I have ſo frequently recommended, is the beſt application hitherto known for that obſtinate and painful ſore on the nipples of ſuckling women, for which almoſt every thing has been tried—and almoſt in vain. The nipples need only to be touched with it a few times in the day, either by the point of the finger, or a camel-hair pencil; the part being afterwards covered with the patient's hand, or other contrivance, to prevent the ſolution being wiped off; the ſtrength of which muſt be determined by the degree of tenderneſs and extent of the ſore. I think I have found ſome advantage in theſe caſes, and certainly, in drawing out a bad nipple, by covering it with a large nutmeg, hollowed out, and the edges left flat. But whether the warm aromatic quality of the nut, has contributed to this, or it has ariſen merely from defending the tender nipple both from the linen which becomes rough by the milk drying upon it, and from the common air, I am not at all anxious to determine. Such a contrivance is always at hand, and attended with no trouble though worn pretty conſtantly, and I therefore often adviſe the uſe of it, as ſoon as the nipples begin to get ſore. This is likewiſe, doubtleſs, the beſt time to have recourſe to the ſolution, which has hitherto anſwered exceedingly well, ever ſince I have been acquainted with it. In

ſome

ſome very bad caſes, where the chaps are deep, and exquiſitely tender, eſpecially if of long ſtanding, it will be uſeful to cover the part with an ointment that is not relaxing, but moderately warm and drying; as any proper cerate may be rendered, by ſimmering a little brandy in it. But my chief dependence is always upon the ſolution, which if properly attended to, will remove the complaint. It has alſo ſtood the teſt of the Lying-in Hoſpital, where it has been conſtantly made uſe of at my deſire for above a twelvemonth, and with the expected ſucceſs; though there are always in the hoſpital many women thus affected, and out of ſuch numbers, it is probable, all the various kinds of ſore nipples muſt, in that time have taken place.

One great advantage of the ſolution is, that it is perfectly harmleſs, and does not therefore require the caution of being wiped off from the part, when the child is laid to the breaſt. Being alſo lightly aſtringent and deterſive, without creating the pain, or that unpleaſant and harſh dryneſs, which every other aſtringent I have made uſe of always produces, renders it as promiſing, as experience hath proved it to be ſucceſsful in this obſtinate complaint; which beſides the great pain that attends it, has frequently fruſtrated a moſt laudable and pleaſing impulſe of nature, by preventing the fond mother from ſupplying the firſt wants of the tender infant, to which ſhe has given birth.

But the evil frequently does not ſtop here; the pain and inflammation of the nipples often extend to the breaſt itſelf, and ſuppuration takes place.—I ſhall take this opportunity of making an obſervation or two on

this ſubject, which though important, has not been publicly treated of.

The firſt ſymptoms of ſuch an unfavourable turn, are uſually a deep lancinating pain, hardneſs and tumor in ſome part of the breaſt, and a conſiderable diminution of the cuſtomary diſcharge of milk by the nipple. This is the moment to prevent the evils complained of, as a very ſhort delay renders the means ineffectual; the ſkin ſoon becoming diſcoloured, and the whole breaſt greatly enlarged. To remedy this, immediate recourſe ſhould be had to bleeding, and to laxative and anodyne medicines; but above all to ſedative applications, which are uſually found to be the moſt powerful diſcutients. Sometimes, however, ſolutions of crude ſal ammoniac, with the addition of a good quantity of ſpirit, and if the inflammation be very recent, ſome vinegar, will be more adviſeable than ſaturnine applications. Compreſſes of coarſe linen-cloth, wetted in ſuch a liquor made moderately warm, and renewed as often as they become dry, are abundantly preferable to heating and relaxing fomentations or poultices, to which ſurgeons have uſually had recourſe.

When the above means are made uſe of in proper time, the inflammatory ſymptoms will ſoon diſappear, the pain be entirely removed, and if the milk runs freely again from the nipple, there will be no further danger of ſuppuration. On the other hand, if there be not a very early and conſiderable abatement of the firſt ſymptoms, however ſlowly the proceſs may go on, the breaſt will ſeldom fail to ſuppurate. In this ſtate, therefore, the plan ought very ſoon to be changed, in order

order to forward the work of maturation. And this, wherever the pulſe will allow of bleeding, will often be haſtened by taking away a ſmall quantity of blood, once or twice, from the arm; though the patient ſhould already have been let blood with a very different view. This will likewiſe be always a ſafe practice in plethoric habits, or where the inflammation is attended with fever, and the event yet doubtful: ſhould ſuppuration finally take place, the bleeding will likewiſe tend to leſſen the ſize of the abſceſs.

The whole breaſt ſhould now be covered with a mild ſuppurative poultice, which muſt be continued till the matter can be felt, and may then be changed for one of mere bread and milk; the part ſhould alſo be fomented twice a day, if the abſceſs threatens to be large, and does not incline to ripen faſt, after there are evident tokens of ſuppuration. The circumſtance of early maturation is of the greateſt importance, for in proportion to the length of time taken up in that proceſs, will be the ſize of the abſceſs, and the time afterwards neceſſary for its cure; at leaſt, this is pretty uniformly the caſe.

Of no leſs importance is the manner of treating abſceſſes after the matter is well formed. And here I am conſtrained to oppoſe the antient and common method of ſurgeons, that of making a large opening with the knife; which can ſeldom, or never be neceſſary. This happy idea originated from the late ingenious Dr. *Hunter*, (to whoſe unremitted labors in the improvement of his profeſſion, as well as in many other inſtances, the public is ſo eminently indebted,) and I be-

lieve that gentlemen in the department of midwifery, at leaſt in London, are well acquainted with the many advantages of ſparing women this painful operation: but as it has not been noticed by ſurgical writers, nor, I think, ſufficiently approved of by the generality of the profeſſion, there are probably many practitioners who are not duly acquainted with it.

The impropriety of making large openings in the breaſt, ariſes, I apprehend, from its glandular ſtructure, and peculiar uſe, together with the harmleſs nature of the complaint. But I ſhall not enlarge here, on the many unfavorable circumſtances attending ſuch a practice, and the tedioufneſs of the cure as the inevitable conſequence. I mean only to hint at a method every way preferable to ſo painful a proceſs. But not only are the larger inciſions highly improper, which are made with the knife, but ſmaller openings with a lancet are generally better let alone; not only becauſe commonly needleſs, and very diſtreſſing to the patient, but the breaſt will heal ſooner when the abſceſs is left to burſt of itſelf. Hereby, we are ſure the ſuppuration will become as compleat as the caſe will admit of, and the little jagged round aperture nature makes for herſelf, will keep open much better than the ſmooth puncture from a lancet. All that is commonly neceſſary, is to cover the part with a ſoft bread and milk poultice; to keep it well ſupported by an eaſy bandage; and carefully to preſs out the matter, and renew the poultice twice or three times a day.

The above method of diſcharging the matter, it was ſaid, is uſually the beſt; there are however inſtances, where

where I have though ſmall punctures made with the point of a lancet have their uſe. Such are caſes, wherein the whole breaſt is very hard, and the habit not diſpoſed to form matter ſo plentifully, as the indurated ſtate of the part ſeems to require. Here a great number of very ſmall impoſthumations are formed, come very ſlowly to a head, often thicken and harden the ſkin, are but little diſpoſed to break, and ceaſe to diſcharge as ſoon as they have vent. The little tumors will even ſometimes ſubſide, if an opening is not made ſoon after the matter can be felt; and the induration remains a long time nearly the ſame. Poultices of more potential heat than thoſe of mere bread and milk, are here, particularly, ſerviceable, as well as light frictions with a weak volatile liniment; and ſometimes a cautious uſe of the unguent. cæruleum; which ſhould not be forcibly rubbed in, but ſpread lightly over the breaſt. At this period, the exhibition of the bark is found uſeful in ſome conſtitutions; in others, ſmall doſes of corroſive ſublimate; and I have ſometimes found the decoction of ſarſaparilla, and powder of millipedes, or ſweating with pulv. Doveri of very conſiderable ſervice; as well as purging now and then with rhubarb and calomel.

The worſt caſes I have met with, have ariſen from cold taken after the end of the month, and are perhaps more common in women who have not ſuckled their children, nor been properly attentive to the turn of the milk. Here, one or more very large lumps are often pretty ſuddenly formed, or ſometimes ſmaller ones almoſt inſenſibly run together, and occupy a great part

of

of the breaſt; are always exceedingly hard, but are not uſually painful at firſt. The appearance, in ſome inſtances, is very alarming, but they all nevertheleſs end perfectly well if prudently managed. I have been called to caſes of ſeveral months ſtanding, where the breaſt had entirely loſt its natural appearance, had become hard in every part, flattened, and the nipple almoſt obliterated. When the diſeaſe extends to ſuch a degree, ſuppuration muſt take place, and indeed is a deſireable event, as otherwiſe miſchief would enſue; for I believe, an entire reſolution of the tumor is not to be effected. Hence, ſaturnine applications, which have been much too indiſcriminately made uſe of, are here highly improper. I have ſeen nothing ſo uſeful as mild poultices, and a cautious uſe of the unguent. cærul. fort. from half a ſcruple to half a drachm, repeated pro ratione effectûs, and now and then taking away a ſmall quantity of blood; while the body has been kept open by the ſal rupellens. polychreſt. or other cooling laxative.

By theſe means, I have ſucceeded in caſes to appearance exceedingly unfavorable, and not to be diſtinguiſhed from incurable ſchirrhi; which have nevertheleſs got well in a very reaſonable time; and the patients have afterwards ſuckled children without the leaſt inconvenience. In ſuch caſes, more eſpecially, the abſceſs when formed ſhould always be left to burſt of itſelf, the uſe of the knife having a direct tendency to increaſe the induration of the parts, as well as to injure the ſtructure of the breaſt; and at the beſt, it has been ſaid, is perfectly unneceſſary.

Sometimes

Sometimes, where the ſuppuration has gone on very ſlowly, an oozing of ichor or ſanies will remain, and often a diſcharge of milk from the ſore, long after the tumor and hardneſs are removed. And I have been applied to, where a ſmall fiſtulous ſore has remained for ſome months, which I have ſafely dried up in as few days, by dreſſing it with aq. vegitab. mineral. made very ſtrong: but if the ſinus runs deep, the aſtringent ſolution before mentioned, uſed by way of an injection, will be preferable.

The above hints are thrown together, as the reſult of long experience both in the Lying-in hoſpital, and in private practice; not, indeed, as a treatiſe upon abſceſſes of the breaſt, but as the out-lines of a pleaſant and ſafe practice, which every man of experience will know how to apply, and the young practitioner may poſſibly profit from.

But in whatever way any ſuch abſceſſes may be treated, and however preferable this lenient method is to the uſe of the knife, and to the large inciſions frequently made, the milk-abſceſs will very often prove exceedingly painful, while the neceſſary long uſe of poultices muſt render this complaint exceedingly diſagreeable to the patient. If the number therefore may be in the leaſt diminiſhed, by the ſpeedy cure of ſore nipples, ſuch a remedy muſt be acceptable, in a double reſpect, to gentlemen engaged in the department of midwifery.—Perhaps ſurgeons in general may be glad to hear, that the aſtringent ſolution is very uſeful in other fiſtulous ſores than thoſe juſt mentioned, and is alſo an excellent

excellent application to expedite the healing of large burns, as well as ſome troubleſome venereal ulcers. And I am yet in hopes, when it ſhall come into hoſpital uſe, (which I do not know it ever has,) it may be found very ſerviceable from its friendly aſtringency, in many caſes which I ſhall not yet take upon me to ſpeak of. The vitr. cærul. calcined to redneſs is a very different preparation, as well as a ſolution of it in its natural ſtate. The latter has been long in hoſpital uſe, and particularly St. *Thomas*'s, but this is not only a very drying, but a cauſtic application, and frequently offends leſs irritable ſores than thoſe of the legs, unleſs it be made extreamly weak; by which it will be rendered greatly inferior to the ſolution I have recommended.

BY way of concluſion to this little work, and with peculiar reference to the former part of it, it may not be amiſs to bring the principal intentions into one view, as well as make ſome apology for ſo bold an attempt to ſet aſide the common remedies and applications for ulcers on the legs, and even to recommend a method, in many reſpects diametrically oppoſite to thoſe in vogue; as exerciſe inſtead of reſt and confinement; free generous diet* inſtead of a ſtrict ſparing regimen; and ſtrong ſtimulant ointments rather than mild poultices and cooling cerates.

---

* See Dr. KIRKLAND on the *diet* of patients, in his *Thoughts upon Amputations*.

If

If the ſucceſs of a plan varying in ſuch eſſential reſpects from any hitherto received, ſhould juſtify the hope entertained, the advantages will not be inconſiderable to men of pleaſure or of buſineſs, but eſpecially to the ſuffering poor, who croud the public hoſpitals much more on account of theſe diſorders than any others. If they can be cured without being obliged to leave their families, and that labor by which their families are ſupported, it is thought one grand obſtacle to their applying for relief in proper time will be removed: and the ſurgeon will doubtleſs be glad, on many accounts, to be ſaved the very diſagreeable neceſſity of receiving ſuch objects into the hoſpital, many of whom can, with more ſafety and propriety, be cured out of the houſe. But important and deſirable as is ſuch a deſign, the author is aware of the obſtacles there may be to the extenſive uſefulneſs he has had in view, in rendering ſuch a plan general amongſt the very pooreſt and heedleſs part of mankind, who are ſeldom faithful to themſelves. Satisfied however of many advantages it will have amongſt thoſe of ſuperior rank, and wherever patients can be depended on, he is confident ſome good will be effected upon this plan, that has never been accompliſhed by any other. He only requeſts his brethren will condeſcend to make uſe of the preceding hints, and allow a little time to prove the utility of the mode, and he doubts not they will find ſucceſs enough to encourage them to perſevere, until farther improvements will be made by them.

He has, however, diſcharged his part; he has delivered his ſentiments as the reſult of long attention to the

the ſubject, and muſt leave his readers to paſs what ſentence they pleaſe. In the mean time, it is his ſatisfaction to have aimed at things, which it can be no crime to have attempted though it ſhould not perfectly ſucceed; whilſt to have concealed what was judged likely to be of ſuch public utility, would have been criminal in the eye of every benevolent mind.

It may be proper to add, that it has not been his deſign to intimate that other ſurgeons are without their ſucceſs in theſe caſes, ſome of whom he knows have paid particular attention to them; and ſhould any know already as much as he has to ſay, and be able to heal them without confinement, or probability of their return, it is pity the public has not been made acquainted with it. It would have ſaved the compiler of theſe ſheets ſome trouble; who had no ſuch deſire of appearing in public, as needleſsly to have expoſed himſelf to the hazard of cenſure, for opinions he has ſuppoſed novel among regular practitioners. To ſuch he now ſubmits the foregoing pages, perſuaded they contain ſome improvements. But ſhould they, after a longer trial, be found inadequate to the end, and any other method be pointed out more rational, eaſy, and certain, it will be the duty of every candid practitioner to adopt it. Till then, the author can only ſay,

Vive: vale. Si quid noviſti rectius iſtis,
Candidus imperti: ſi non, his utere mecum.

Hor. Epiſt. 6. L. 1.

THE END.